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TOWN AND COUNTRY
PLANNING

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TOWN AND COUNTRY PLANNING

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NOTE TO SECOND EDITION

A decade in a swiftly evolving subject such as the science and art of Town and Country Planning is a long time: and when during that period a war has supervened, which bids fair to change the whole economic and political face of existence (leaving only stability in moral and æsthetic values) the revision of one's thoughts is not easy. This little book has been fully revised but not rewritten: perhaps it still reflects the optimism of the year 1932 when a new (though mutilated) Act gave delusive hopes.

Before the war three dominant issues had asserted themselves: the location of Industry; the place of Agriculture in planning; the solution of the Land question. Since the war has begun the absence of the normal security of life and the destruction of the centres of many of our towns have made us reconsider our whole environment.

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PART I

THE BACKGROUND

CHAPTER I

PLANNING OR LAISSEZ-FAIRE

MANKIND might well be divided into two groups, in regard to their surroundings : those who instinctively set about shaping their environment and those who are content to accept the state of things as it exists. In spite of a general human tendency towards the pioneering spirit of the first group, there always persists a heavy weight of inertia, which is found almost universally in extreme youth and old age ; it is also frequently the attitude of the so-called practical man. The first job to which the pioneering man sets his hand is the altering of the face of the Land. Now it is, of course, dangerous to attempt to define where nature ends and where human artifice begins ; but there is manifestly a broad distinction between a piece of wild country and a cultivated landscape. Bacon's remark, " God Almighty first *planted* a garden . . ." is distinctly misleading ; it was called a garden merely because it was enclosed ; it was the Fall that set man planting, revising and refining upon nature, and thus inventing the art

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of landscape design and town planning. To make a rough generalization it may be said that 'Planning occurs when mankind in the group makes a definite and conscious attempt to model or mould his environment; natural human Growth takes place when mankind is unconscious of or unconcerned with its general form. If there had been no Fall, this unconscious growth would presumably have been in harmony with nature and there would have been no need to practise town planning; and it is rather significant that Abel, who was nearer to the ideals of Paradise than his brother, was content with grazing, which requires the minimum of human control of landscape; whereas Cain embarked upon arable farming, which is the origin of country planning; and his son built the first town.

With this divergence of view between the organizers and the accepters of things as they are, it is inevitable that Planning has been, as the late Professor Haverfield said, "an act of intermittent activity." Its exercise has not been a matter of the advance of civilization, though perhaps the methods and objects have advanced; there have been whole periods and whole countries, both regarding themselves as highly civilized, when natural growth—really synonymous with complete muddle—has happened. This state of affairs occurred during a large part of the nineteenth century in England, and the form of the resulting towns does not bear much relation to the imagined wildness of

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Paradise. On the other hand, there is a workman's village at Kahun in Egypt which was built during the third millennium before Christ, which is an example of a carefully planned little community, for the workmen and managers engaged upon building a neighbouring pyramid.

It is perhaps as well at the very outset to have some idea of what constitutes the Planning that is to be described, for there have been cramping limitations put upon the word: even the learned Professor Haverfield confines his survey of Planning in the ancient world to the plotting of streets. Of course it is of much wider significance. ✓When two or three buildings are gathered together, there arises the question of their relationship to each other; when a road cuts across an open stretch of country, there is its relation to the landscape; when a piece of Land is enclosed, the question of the boundary lines occurs, and the decision as to the use to which it is put or the manner in which it is divided up. All these are examples of Town and Country Planning, ✓or, to use a shorter expression, of "planning schemes" which, it must be remembered, represent a distinct operation from constructive works. The touchstone of what constitutes a planning scheme is this matter of relationship, the accommodation of several units to make a complete but harmonious whole. The juxtaposition of independent units, however perfect in themselves, which remain distinct, does not produce a planning scheme; nor does

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the concourse of units, however large, which makes a mere mass or muddle. Planning is a conscious exercise of the powers of combination and design, and not a question of unconcerned growth, even though the latter may produce fortuitously happy results. We shall look for examples of Planning, then, in groups of buildings, where there may be no question of streets or through traffic, for example, the Acropolis at Athens, cut off from the city by a sheer wall of rock. Or again there are the typical examples of town planning proper, buildings facing on to streets, which in themselves are composed into some sort of pattern. There is the country estate type of planning in which the house and pleasure garden are distinct from the park ; the farms in suitable sizes with their steadings in convenient places, and certain areas given up to woodlands; the village for the smaller houses, with its centre of local life and public buildings for religion, social intercourse or business. There is finally that type of Planning which covers a region or whole country and is concerned with a few main National requirements, such as industry, housing, roads, railways, open spaces, water, electricity, etc.

Though all these are examples of conscious design, it will be convenient at first to consider the more concentrated types of Community planning—the town or village—where characteristics are more sharply defined. And here it is possible to trace two sources of planning activity : the Pioneer work in a new country, and the

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Control of growth in an old country. The early examples of primitive man will be naturally of the pioneer type, but similar conditions in recent times will be found to produce similar results. The chief conditions of a new country are a clear site, with no past encumbrances of human endeavour or association and an absence of lines of connecting communications: the plan will be laid down as a whole, and it usually takes

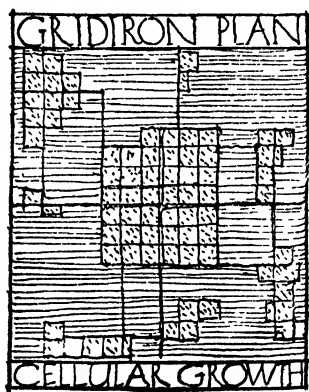


FIG. 1.

some standard form or composition. The Pioneer Plan of all ages is almost invariably a simple rectangle divided into square blocks for building, with streets intersecting at right angles: it has been nicknamed the Gridiron or Chessboard Plan. In an old country, towns and villages generally spring up on or near the roads (not necessarily the *main* roads), and there is early a tendency for approach roads from various

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directions to form a nodal group.✓ The best way of learning how these old-country communities form themselves into various designs on plan, within certain well-marked limits, is to study a group of villages such as those in the Cotswold Hills.✓ The planning that enters in here is that of shaping or influencing an unconscious growth, and most people who examine carefully these highly developed Cotswold villages will agree that the

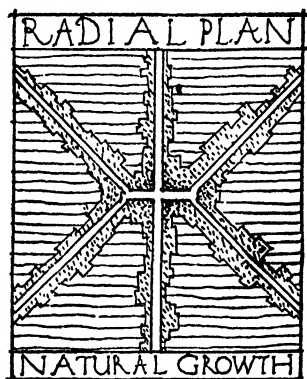


FIG. 2.

siting of the church, the planning and planting of the green, the placing of the houses and the intersection of the roads is the result of thoughtful village planning.✓ (See also Figs. 34 and 35.)

The difference between what might be called the Radiating Plan as a basis of natural growth and as a controlled *plan* can be seen from the diagrams 2 and 3. In 2 the houses have simply straggled out in ribbons along the roads; in 3 a space has been formed

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at the intersection and a closer concentration of building has caused a series of cross or circumferential roads to be put in, joining the radiating ones. Here, then, is another fundamental type of plan, nicknamed the Spider's Web, to put beside the Gridiron. It might be convenient to label the Gridiron as the *artificial new* plan and the Spider's Web as the *controlled-growth old* plan.

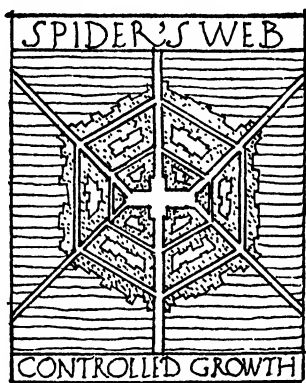


FIG. 3.

When mankind sets out to be orderly there is often a danger of carrying regularity to excess. Fortunately in both the new- and old-type plan there are factors which make for breaking up the standardized regularity of the pioneer or organizing spirit. In the first place, there is the existence of dominant natural features, such as the contours of the ground or the bend of a river. In the older sites there are human features which make for irregularity such as

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historic remains and sacred spots, which the planner is forced to respect ; or there may be strong motives of self-interest which deflect regularity. Generally speaking, these difficulties in the way of the standardized plan produce the more interesting results ; they are neglected at the planner's peril, as may be seen in the case of New York where the hard grid plan takes no notice of the undulations of the coastline, or in that little Greek town of Priene where a rectangular plan was applied to a site so hilly that most of the streets became staircases. On the other hand, when the planner had a new and level site, where there was an absence of natural features, trees or rivers, and no spots of human or divine sanctity, and moreover when the town was laid out and built at once—as happened in the outposts of the Roman Empire—we shall expect to find an exactly regular town plan, which will meet its purpose satisfactorily. It must not be thought that these two types of plan, that of the new country and of the old, have any chronological significance : they appear and recur wherever the same conditions obtain ; thus in modern Russia some of the new towns are adopting the elementary pioneers' plan of the Gridiron, while Moscow continues its radial motif. It is quite possible to see in one town these two types of planning proceeding simultaneously : in Berlin during the eighteenth century, the west end—the quarter of Nobles—was square planned, based on the great Unter den Linden Boulevard, while on the east a radiating town was forming

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and was unconsciously shaped into a web or fan. Most of our English towns, having grown up gradually in an old country, possess traces of the radiating plan, but until modern times there have been few signs of working it up into a designed system.

A study of Berlin shows that these two types of plan have very different methods of enlarge-

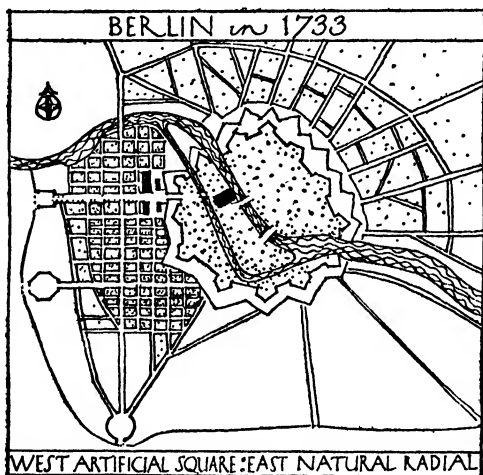


FIG. 4.

ment: the *new* type proceeds, on the reproductive principle of some of the lower animals, or like the bees' honeycomb, by adding cell to cell, the whole being uniform in texture: this is how most American cities have grown, from their squared nucleus (see Fig. 1). The *old* type, like the Spider's Web, focuses upon a centre; its radiating roads, ever widening, admit

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varying treatment of the interstices, and the encircling roads change in character as their circumference enlarges : it is an organic growth, not a mere reproduction of standard units. The carnivorous, individualist spider produces the higher complex type, the vegetarian communist bees the lower simple type. It is interesting but not surprising that bees and spiders furnish the prototypes of both these methods of growth ; such insects share with mankind a passion for creating symmetry, regularity and neatness in protest against inanimate nature's dishevelled prodigality ; they, and others less orderly, have also nearly shared with mankind in the dominion of the world.

Can any motives of design be discovered in such simple variations of shapes, which, as will be shown in the following chapters, do not conform to the evolution of style in architecture or the other arts ? That skilled design will produce more beautiful and convenient results than the stereotyped application of a formula or the leaving of things to take their course, is certain. The essence of the æsthetic of Town and Country Planning consists in the frank recognition of these two elements, *town* and *country*, as representing opposite but complementary poles of influence. Instead of regarding the intrusion of some natural feature such as an irregular site as a nuisance because it breaks up a preconceived regular plan, it should be welcomed as a formative influence to produce a plan

PLANNING OR LAISSEZ-FAIRE

adapted to and designed for the site. With these two opposites constantly in view, a great deal of confused thinking and acting is brushed away: the town should indeed be frankly artificial, urban; the country natural, rural. But neither can exist for human use without some tincture or leaven of the other. Thus the landscape influence on the town is shown by its natural setting, by the preservation of existing features, by the introduction of gardening, trees and grass, by the use of local materials: on the other hand the urban influence tends towards regularity of plan, formality of building, scale of parts and a use of standard or a universal type of materials and design. In a small town or village natural influences—local materials, etc., would prevail: the great city is remote from such local influences. Even in the same town the degree of formality or artificiality naturally changes from the centre towards the outskirts: roads widen, they become more freely planted or less straight, the density of the houses decreases, gardening becomes evident, and trees dominate in the urban scene. But this does not mean that town should shade off imperceptibly into country and the country become continuously urbanized. The distinction should be sharply marked; the polarity between the two might be stated as follows: that the sheer urbanity of the town be leavened by some *natural* tincture, increasing as the country is approached; that the country, except in some few wild spots, must necessarily be sophisticated by

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some human treatment. But let urbanism prevail and preponderate in the town and let the country remain rural. The arts of Civic and Landscape Design share between them this dual kingdom.

To turn to the town itself, both extremes are to be avoided ; on the one hand is the extreme of regularity, what has been called the Pioneer Plan in the hands of the drill sergeant, with no concession to natural setting, climate or local usage. In the other direction the extreme of naturalism would lead to the negation of planning by insisting on leaving everything to take its natural course ; the acceptor of things as they are becomes the muddler.

There is one effect of the naturalistic in Planning which should be mentioned. So far it has been assumed that man works with regular squared and geometric forms unless nature diverts him from his straight path. This is probably quite true : but there is a definite school of the intentional picturesque—a sort of artificialized nature—in which every effort to depart from regularity is made even when there is no physical justification : it is seen at its best in some English parks and gardens—indeed, under the term *Jardin Anglais* it had a European influence in the eighteenth century—and at its worst in the wriggling path that leads across a lawn and in the imitation ruins and rockwork of the romantic gardeners. To show the complexity of this æsthetic aspect of planning, Haussmann in his great scheme for remodelling Paris adopted a formal—some people think too

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formal—treatment for the streets and places ; but he found the two great parks, the Bois de Boulogne and the Bois de Vincennes laid out under Louis XIV on equally formal lines with straight drives radiating from centres ; he proceeded to remodel these parks into those elaborately artificial landscapes which we admire to-day ; he probably argued that the park should recall the country in its informal lay-out. The Acropolis at Athens is the most remarkable example of a group of buildings and statuary planned and carried out at one time on an intentionally irregular basis. There was also a short period of the nineteenth-century town planning in Germany when streets were curved, crossings widths varied and other picturesque features introduced in imitation of certain examples of unconscious growth during the Middle Ages. This aberration was short-lived (see p. 93).

It indeed calls for a nice sense of fitness to determine how far these two elements of design must be carried, particularly in the use of the picturesque. The Chinese have advanced much further than any European country in the rural problem, under the title Feng Shui, which literally means the weathering effect upon landscape of the natural forces of wind and water. The density of their population has forced them to control, in the interests of landscape fitness, the human additions. Local administrators have absolute powers and offences against the spirit of the plan are invested with a moral gravity.

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Town and country, however distinct, cannot be isolated in any true study of human environment. The artistic problem of their interaction is no less the social and economic one. The town can only properly be studied in relation to its geographic setting: the convenient unit for such study is called the Region. Pursuing this thought logically, the assemblage of regions should form the whole Country.

The simplest example of a region is that of an agricultural district, with its little metropolis, the country town; this is surrounded by a group of villages and round these again are the farmland and homesteads. The whole is an interdependent system, of which each part has its function. A more complex region will include a group of towns carrying on perhaps some specialized form of industry related to the geology or climate. The agricultural system, which probably pre-existed the industrial, becomes fused with it and partly superseded; the old market town like Rotherham has, it is true, become a manufacturing city, but it is not the factory metropolis, being eclipsed in this more recent occupation by Sheffield. Professor Patrick Geddes was the first to direct attention to the need to classify and study the functions of the several components of these complex communities. A group of closely inter-related towns he christened a Conurbation, and he discerned three broad types into which they fall: primary, those that produce at first hand human necessities—such as the agricultural village, the fishing

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port or the manufacturing town ; secondary, those that act as headquarters for exchange—for marketing, warehousing, exporting and importing of goods ; tertiary—those that provide residential, recreational, restorative or educational facilities. This is a very broad classification, and it will at once be seen that a place is very rarely of a pure type—there is always some admixture. But it is just in assessing the importance or predominance of function that the value of this means of classification consists. In the case of Blackpool, which is as nearly as possible a pure type of tertiary town, its single function—the great recreation centre of industrial Lancashire—is simple to grasp ; no time need be wasted upon analysis of object or function. But its neighbours, on the south St. Annes, and on the north Fleetwood, are by no means so simple in structure ; and in Southport there is a duality of purpose that may easily prove conflicting—the requirements of the day or short-stay visitor, and the all-the-year-round resident. Again, a city like Chester reveals a highly complex structure ; it is compounded of:—

- (i) A market and shopping metropolis for a large part of Cheshire and N. Wales.
- (ii) A cathedral city.
- (iii) An antique town of great attraction.
- (iv) A recreation town (due largely to the River Dee).
- (v) A residential town of two sorts :
 - (a) large houses for people working in Liverpool, etc. ;

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- (b) small houses for working men from Queen's Ferry and North Wales.
- (vi) A manufacturing town (heavier trades being just beyond the boundary).
- (vii) A military centre (its origin).
- (viii) A county town.
- (ix) A road and railway centre.

A careful and reasonable adjustment between these claims must continuously be made; and it will at once be seen how many of them are related to an area wider than the city itself. Chester could not be adequately planned without planning the region as well, seeing that one of the chief problems of the city's planning is not strictly a function of the city itself : namely, the fact that it is the gateway between England and North Wales, and so, through its historic streets, that cannot be widened, constant and ever-increasing streams of traffic are flowing.

The growth and continued well-being of communities depends largely upon the attention given to their regional situation and to the way they adapt themselves for these requirements. New towns, set up for some extraneous purpose, have often proved failures for this reason. Some of the earliest cities were built on sites chosen as fortresses rather than for reasons of economic suitability : they soon decayed with a change in the military situation ; the same has occurred with some of the " plantations " of ex-servicemen on outskirts of the Roman Empire, though the number of Roman foundations which are flourish-

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ing towns in this country to-day shows that they had a keen eye for a good site. Perhaps the biggest outburst of uneconomic city-founding took place in France under St. Louis, our King Edward I and other potentates. These Bastides, as they were called, founded for political reasons, have rarely flourished, unless as at Libourne the site at the confluence of two rivers turned out to be of permanent commercial importance. On the other hand Sheffield, grown up on a primitive site where was water-power for grinding, hill-tops for draught-furnaces, local iron-stone and charcoal, has lost or superseded all these, but in place has found coal and, most important, has guarded its inherent human skill (inherited or otherwise) in steelworking, large and small.

There is danger in too sudden growth—an onrush of prosperity which has the effect of submerging efforts at control and design. This has frequently happened in the case of capital cities: Athens and Rome show smaller traces of planning than less famous contemporary places; London, in spite of Wren's plan and the subsequent efforts of the big ground landlords has sprawled in shapeless confusion. The picture which the plan of an industrial town conjures up is even more vivid: that of Belfast, for example, suggests a town begun in a leisurely manner, with a designed centre, not indeed very remarkable but having the dignity of a large central square where stands the City Hall: a regular, artificial and urban arrangement. But it has been suddenly over-

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whelmed by a rush of prosperity: the lava streams of irrupting urbanism seem to flow blindly in *natural* devastating confusion. The whole of this nineteenth-century outburst of town-building was likened by Cobbett, who was living in the midst of it, to an epidemic of wens, with London as the GREAT WEN. And the wen, though it depends upon human sustenance, is beyond human control.

The conditions favourable for well-planned towns are well stated by Professor Haverfield: "The age must be one in which, whether through *growth or through movements of population*, towns are being freely founded or freely enlarged, and almost as a matter of course attention is drawn to methods of arranging and laying out such towns. And, secondly, the builder of these towns must have wit enough to care for the well-being of common men and the due arrangement of ordinary dwellings." Adam Smith held that provided the individual was successful and well provided for, the sum of these units would make a satisfactory whole: an invisible hand was postulated to introduce arrangement into the mass; the industrial towns built during the period of his economic beliefs have not shown that much reliance can be placed on Adam's invisible hand. The Greeks, curiously enough, recommended the exact opposite: they gloried in the meanness of private houses as leaving more wealth and workmanship for public magnificence, the exaltation of the community or state.

Both are wrong: the general design and

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public features of the city should be studied, no less than the conditions under which the individual lives. The plan should not be in the hands of the drill sergeant nor should the city be under the domination of the muddler who will talk about the Law of Supply & Demand and the Liberty of the Individual. Town and Country planning seeks to proffer a guiding hand to the trend of natural evolution, as a result of careful study of the place itself and its external relationships. The result is to be more than a piece of skilful engineering, or satisfactory hygiene or successful economics : it should be a social organism and a work of art.

The present moment (1942) provides those conditions favourable for planning. An immense amount of destruction has occurred; much of it, if one sets aside the human suffering, discomfort and poignant loss of treasured possessions, of property which was worn out and ripe for rebuilding. There is not only Blitz but Blight to be made good. Re-planning and rebuilding is inescapable: it can be done methodically and progressively or it can be left to the overwhelming rush at the close of the war.

CHAPTER II

HISTORIC EXAMPLES : ANCIENT

Egyptian, Greek and Roman

AN art and practice of intermittent activity is not very satisfactory to chronicle : there will be gaps in important periods and consequently a neat and satisfactory scheme of historic evolution cannot be displayed. Furthermore, there is in site planning a regrettable absence of stylistic indication as to date; it is possible at a glance to distinguish a Greek marble from a statue by Canova, a Byzantine fresco from a picture by El Greco, or a Roman temple from a Renaissance church, however much there is of connecting inspiration between these pairs of examples. Sites of towns, however, of wholly different dates, may exhibit almost identical features, though the difference is discoverable, of course, by archæological excavation. There are no clearly marked signs of a gradually evolving style : even the sharp break between Roman and Mediæval architecture is not reflected in the corresponding town plans ; the plan of a thirteenth-century French Bastide is very like that of a Roman Colony. There is also another difficulty in deciphering the period of work owing to the changes which have overtaken a

HISTORIC EXAMPLES : ANCIENT

town's plan during its history. To say nothing of the eight—or is it nine?—towns that lie on the site of Troy and more at Megiddo, there is the superimposition or insertion of later features, which owing to this stylistic resemblance, cannot easily be distinguished from an original design. How much of the main cross-roads of Chester or Gloucester is precisely Roman? It would be dangerous to attribute the vista placing of St. Peter's Church, Chester, to a Roman origin; and yet the general plan is Roman. The main cross-roads that give a vigour to the plan of the fifth-century Greek Selinus were probably a Roman addition; they have indeed a strong resemblance to the main roads of a camp plan. With these warnings, it will not be disappointing to find the history of ancient times, as drawn from actual examples, to be comparatively brief and somewhat lacking in precision.

The planning of Egyptian and Mesopotamian cities has suffered from the general flimsiness of their domestic buildings, which have left small vestiges as compared with their enduring temples. The Greek idea of the abasement of private dwelling in comparison with the magnificence of public building, is here seen carried to excess; but it must be remembered that to the inhabitant of a hot climate his house was less important than to the home-staying dweller in the north. In Egypt, as also in Mesopotamia, civilization and prosperity were based upon great rivers periodically flooding level riparian

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tracts : the country is entirely artificialized by requirements of irrigation, the most exact and precise of all forms of development. The straight line of the canal dominates the landscape as well as the city ; few contrasts are more impressive than a view from the air of the desert, devoid of feature or vegetation, which marches right up to the cultivated green patchwork of irrigated ground : there is no change in level or natural feature ; the transformation from the most sterile to the most highly cultivated is due to the insect-like activity of the Egyptian peasant, using the magic of water. It is nevertheless strange that so little remains of the glories of Thebes and Memphis that a temporary humble workmen's village, Kahun, is almost the only example we have to show, as we should expect, that their streets were regular and squarely planned. It is to be hoped that the dwelling parts of these cities were more interesting than this housing scheme, which shows careful planning, but no imagination.

But Egyptian temples are so elaborate and composite that they, with their approaching avenues lined with sphynxes, may well be considered as examples of site planning rather than as individual buildings. Their composition exhibits a remarkable advance upon mere regularity : the principle of axuality or symmetry of design on either side of a central line is here displayed ; whether this axis, along which are strung the avenue of approach, obelisks, entrance pylons, open court, caryatid court, hypostyle

HISTORIC EXAMPLES : ANCIENT

hall and inner shrines, was merely planned to entrain a direct ray of sunshine into the sanctuary or not, the principle of design is there—a central axis with symmetrically disposed buildings on either side, leading up to a terminal climax. Here is imaginative design in its highest form, which one feels must have extended to the cities of which these temples formed the dominant note.

In Mesopotamia there is the same absence of existing evidence of city planning. Babylon is supposed to have been four-square, with the river crossing it diagonally, having a great processional way, built or rebuilt by Nebuchadnezzar, parallel with the river, with other streets at right angles. How this triangulated street system was worked out, we do not know. Ur of the Chaldees, which has recently been excavated, is possibly the oldest city site in existence: the chief remains of planning, however, consist of Nebuchadnezzar's great temenos wall, enclosing in a rectangle the squared group of much older temples and the great Ziggurat, the four-square artificial Hill of Heaven, built by the Sumerian rulers.

With City Planning in Greece, emerges the personality of the first known town-planner, Hippodamus of Miletus, born about 480 B.C. "A strange man," Aristotle calls him, "whose fondness for distinction led him into general eccentricity of life, which made some think him affected (for he would wear flowing hair

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and expensive ornaments ; but these were worn over a cheap but warm garment, both in winter and summer)." He also incurred Aristotle's censure for aspiring to be an adept in the knowledge of nature and for suggesting, without being connected with the Government, an ideal form of constitution, which the Sage demolished with gusto. The description of his theory of planning is, however, sufficiently precise : " He introduced the principle of straight wide streets and first of all architects made provision for the proper grouping of dwelling-houses and also paid special heed to the combination of the different parts of a town in a harmonious whole, centred round the market place." It has been suggested that Hippodamus learnt his business from the rebuilding that had been going on in his native Miletus and that he was given undue credit by the Athenians for originality ; anyhow, he had Pericles for a client, who commissioned him to remodel the new port of Athens, the Piræus, where he had a difficult site with an irregular coastline ; and he also designed the Panhellenic colony of Thurii in South Italy in 443 B.C. But Pericles did not entrust him with his great rebuilding of the Acropolis, afraid perhaps of his politics, but more probably of his excessive use of the right angle. Hippodamus' influence was widespread ; Rhodes is attributed directly to him, though he must have been a very old man at its founding : but many new cities built about this time in Italy, Sicily and North Africa were modelled on his or similar

HISTORIC EXAMPLES : ANCIENT

current ideas. Selinus in Sicily is one which has been excavated and which shows a somewhat pear-shaped Acropolis intersected by two main roads. It would be attractive to attribute this cross to Hippodamian design : unfortunately it is not possible to prove that it dates from the rebuilding in 409 : otherwise the plan is remark-

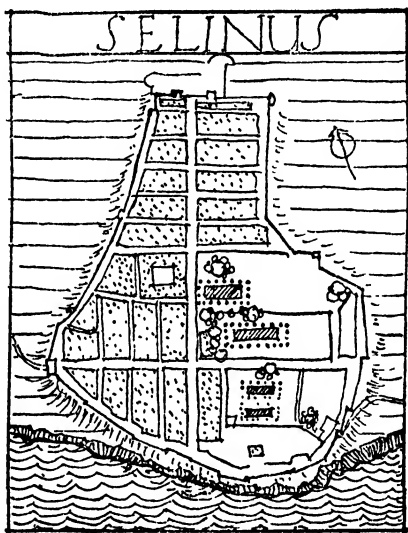


FIG. 5.

able as having four temples (famous architecturally) placed parallel to the cross, without regard for axuality, and for the elongated form of the parallel building blocks.

Very different from these square-planned towns were the monumental groups of buildings of the classical and Hellenistic periods. And yet

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the absence of axially in the street plans may be closely allied to the picturesque grouping of the public buildings, where the site was unencumbered by streets; for when once in a building group, symmetry on either side a centre line is abandoned, the principle of balance succeeds. Many Greek sites were so mountainous that symmetry was impossible; but it does not appear that they aimed at it. The individual building unit, it is true, the temple, was completely symmetrical in itself: where a single building stood on a rock, there was no effort (as in the mediæval castle) to make it appear to grow out of it: it stood there a complete, frank work of art. Beyond this the Greek would appear to have regarded regularity as mechanical. The Athenian Acropolis is the best example of this studied picturesqueness of grouping, which cannot be explained on religious grounds. A recent writer has suggested that Mnesicles, the architect of the Propylæa—that splendid entrance—had visualized a symmetrical arrangement: if so, he was sadly disappointed—the Athene Statue, just off the axis and tilted one way—the Parthenon, almost parallel, and the Erechtheum (already irregular for historic and ritualistic reasons). a smaller unequal group on the other side. And yet what subtle plan did not this group follow! first the human eye, not stationary, as presumed on paper, but moving from object to object, takes in each as turned to display its striking first glimpse; and then the moving pilgrim pursues a certain track of visi-

HISTORIC EXAMPLES : ANCIENT

tation. This is what the planner—Pericles or Pheidias, an amateur or a sculptor rather than an architect—devised, having also in mind the relation of these buildings to the surrounding landscape, seen on their rock from the city and afar. Perhaps Dynamic planning rather than picturesque composition best describes the manner of Pericles' Acropolis. At Delphi, picturesqueness has degenerated into mere confusion : but here inter-state jealousy probably prevented any arrangement of the national treasuries and shrines which jostle each other on the ramped approach road to the Temple. But the Hellenistic group at Pergamum in Asia Minor triumphantly asserts the Greek principle of balance in composition and the full use made of a site of utmost mountainous grandeur : a semicircle of great buildings, including the altar of Zeus, the Saviour, crowned the crescent-shaped ridge ; below them a theatre was hewn out of the re-entrant slopes, and a terrace 250 yards long was held up against the wall of rock by great buttresses.

The Macedonian period was rich in the founding of towns and there is no clear break between these and the later Greco-Roman cities which are found all over the Near East. Alexander and his generals had a passion for creating cities which were to be family and dynastic monuments ; and to the simple squared planning of the earlier Greek period were added monumental effects which are integral to the plan :—the main

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street or Platea, widened to a processional way (based perhaps on ancient Mesopotamian examples), found in the famous Canopic Street of Alexandria and at Antioch; normal streets colonnaded, with, in some cases, the columns carrying statues on brackets (instead of dotting them confusedly in the Agora), as at Palmyra—sixteen miles total length of such streets at Antioch; vista planning, i.e. the provision of terminal features as at Antinoë in Egypt and Gerasa in Syria; the great four-way triumphal arch at the main cross-roads as at Phillipopolis in Syria and Tripoli in Northern Africa and the four-pillar monument at Palmyra; the working of public buildings into the street plan at Gerasa; the loss in importance of the isolated Agora, its place taken by a widening of the colonnaded Principia or main Street; these and many other decorative features were evolved, making these towns full of varied interest and of rich if somewhat loosely classical architectural effects.

Two towns may be mentioned in more detail, one at the beginning—about 300 B.C. and the other chiefly dating from the second century A.D. Priene, a small town near Miletus in Asia Minor, was of no particular importance but chance has preserved its plan almost intact and it is thus possible to see what a small place with a population of about 4,000 was like. It was not imposing in its monuments, having a well-marked wider central road (24 feet) with an agora or market-place formed by a rectangular

HISTORIC EXAMPLES : ANCIENT

widening of this road. Above the agora are a theatre and temple, below it a sports centre. The rest of the plan consists of approximately equal-sized square building blocks, separated by streets about 11 feet wide. The description sounds quite ordinary, but the site is remarkable: a lofty precipitous rock uninhabited or abandoned formed a sort of acropolis and the town itself lies on a slope steeply descending in concentric contours. Nothing can exceed the skill of the enclosing walls, their use of the rocky ground and ingenuity of entrance; but on the other hand nothing could be more futile than the application of Hippodamian rectangular principles to this site. Aristotle's advice "the whole town should not be laid out in straight lines, only certain quarters and regions; thus security and beauty will be combined"—has not been followed.

Gerasa is as ornate as Priene is plain, and its plan is fitted to a difficult site with extreme skill: this city must have been one of the most beautiful in the ancient world and was worthy of its setting in the all-glorious country of Trans-Jordania. Its main avenue runs along the level, parallel with a river valley which formed a parkway¹ filled with oleanders. The avenue is divided into three sections having loftier columns in the centre: the two main cross-roads were differently treated, one with a tetra pylon, the other with a circus (recently

¹ A similar natural feature is pleasantly treated at Antinoë.

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discovered); at the centre point is a cross vista, the upper part forming a sort of inner acropolis approached through a gateway up a staircase to the temple of Artemis. The most remarkable point of all is an oval piazza at the south gate forming a spacious approach. There are many more features in this remarkable town which displays great skill in avoiding the monotony which some of the classical cities must have possessed.

Jerusalem is one of those inextricable palimpsests of planning: what exists to-day (apart from David's city and the temple topography) is probably Roman in origin; but a fusion of Roman, Crusader Gothic and Islamic design has produced one of the finest cumulative civic effects in the world; the narrow vaulted approach, shot with beams of light, through continuous *suks* (or bazaars), the sudden vast, open, golden-hued sunlit esplanade, the central Dome of the Rock (one of the five domes of the world) and the grey Mount of Olives as background—beyond this human magnificence using a background of austere nature can no further go.

To turn from these cities of the gorgeous East, to the planning of Roman towns proper, is apparently to descend into a lower, more mechanical plane. But it must be remembered that the Roman Colonial and Camp Plans were specially devised for the pioneer or military engineer to carry out, without artistic or other

HISTORIC EXAMPLES : ANCIENT

advice. Such a plan must be simple to set out and the building blocks or *insulae* easy to measure : these either faced on to the two main roads or were parallel to them ; and there was probably the same difference of opinion then as now as to the rival advantages of being on the main road, watching the traffic and enduring

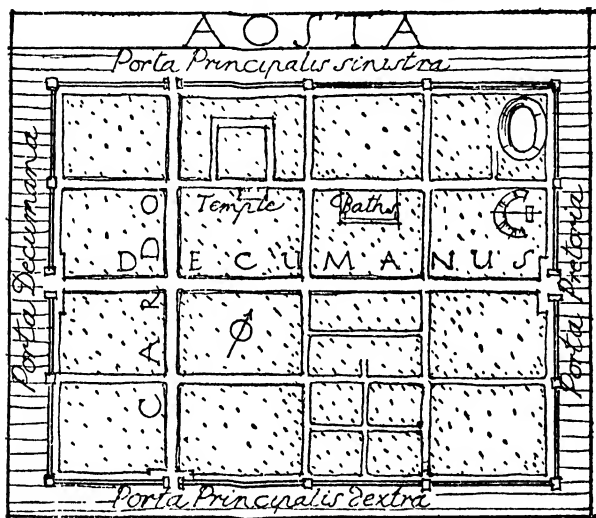


FIG. 6.

the noise, or living in the quiet side-streets. The two main roads, often colonnaded to distinguish them, were the principal feature which Rome probably introduced into the Chessboard Plan : one of them, the Decumanus, running east and west, was central ; the other, the Cardo, was usually nearer one end. The Cardo was also frequently interrupted by the Forum or Pre-

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torium which might occupy the place of six or more insulæ. The theatre and other public buildings also take up one or more insula and have in their placing no particular reference to the general design. The only suggestion of axiality is therefore the central through road or possibly the approach to the Forum.

The earliest Italian planning was not borrowed from Greece or the East: it appears in some primitive northern settlements known as *Terramare*. These are one of Civilization's puzzles: earlier than the theories of Hippodamus or the practice of Nebuchadnezzar, they are meticulously regular, at the same time with a strange distorted twist in the whole settlement, the blocks of which they are formed being not rectangular, but trapezoidal. This characteristic occasionally recurs in Etruscan planning, which immediately preceded Roman; of more frequent subsequent occurrence is the elongated form of the blocks which might be called a special Italian feature for, except at Carthage, it is rarely found outside the Peninsula. The normal Roman plan had almost square insulæ which were occupied by one, two, three or even four houses. Typical towns built in Italy are Aosta and Turin, both founded by Augustus about the same time. Aosta has not grown much and later public buildings have enhanced its plan. Turin is the most famous Italian example: its street plan has survived almost intact: the *Decumanus* bisects the town, the two halves of the *Cardo* do not run through. The insulæ are

HISTORIC EXAMPLES : ANCIENT

nearly square and measure about 80 yards. It is interesting to note that the subsequent growth immediately outside the Colony was almost indistinguishable and that the later town has continued its main squared lines, with only one departure where the right-angled crossing of the

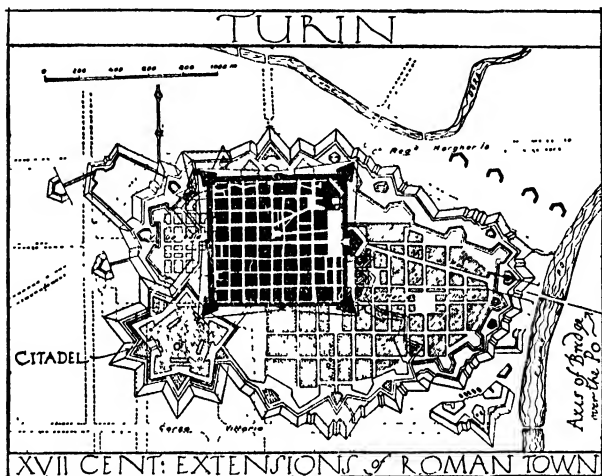


FIG. 7.

Po has suggested a diagonal line from the Piazza Castello.

Examples of Roman provincial towns are almost innumerable: abandoned sites are the most useful for study. Timgad in Northern Africa is one of the best preserved: a small, almost square town on a level site, which subsequently grew in an irregular radial fashion, it contained 132 insulæ of which about 20 were occupied by

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public buildings, leaving space for about 400 dwellings. The Forum was alongside the Decumanus, but did not open directly into it: the Cardo was blocked by it. Timgad, like most Roman town plans, looks deadly monotonous, especially on the small scale: yet its one great feature, the Colonnaded Decumanus running direct through the city with the play of sunlight and shadow and the bright display of merchandise below, must have been extremely impressive. French and German examples are very similar, but Silchester and possibly Caerwent showed a definitely English version of the standard plan. In the first place the Forum at Silchester occupies a more truly central position; but more remarkable still are the *insulæ* which, instead of being wholly occupied by Roman houses, are garden plots carrying typical rural villas: the town is a collection of country houses, a Romano-British garden city.

Archæological purists stiffly maintain that few "survivals of Roman streets have conditioned the form of mediæval or modern towns". The plain man sees numerous towns flourishing on sites which Rome selected and planned, and containing the typical cross—as in Gloucester, Chichester, Chester, etc., which if not precisely on original lines, perpetuates the Roman basic idea.

Rome itself, of course, was quite un-Roman in its general plan; it possessed none of this careful if utilitarian regularity. The original

HISTORIC EXAMPLES : ANCIENT

Rome, it is true, was reputed to have been founded on the rectangular flat top of the Palatine—*Roma Quadrata*—but the seven hills, which were really more, could neither be chess-boarded as they were, nor levelled first. But neither do they bear any signs of curved roads to suit the site: the whole plan indeed was a complete jumble; only one of the great outside highways, the *Via Flaminia*, leading up to the Capitol, showed any considered objective, and this has had to wait, as to terminal feature, for Victor Emmanuel's monument. The other country roads were absorbed as the city grew beyond the Servian Wall. Rome gave up in despair: allowed lofty ill-built tenements to crowd upon the narrow streets, prohibited wheeled traffic during the day, and waited for a Nero who had the courage to burn it down and arrange for some sort of improved rebuilding. Meanwhile various Emperors proceeded to lay out large tracts of monumental planning—Palaces on the Palatine, Fora on the Quirinal and *Thermæ* here and there, all self-contained units turning blind walls to the city. The original *Forum Romanum* and the *Campus Martius* alone can be considered as forming parts of the general plan of Rome; but the area between the Forum and the Colosseum is merely dotted with huge jostling buildings and arches, and the *Campus Martius*, though more extended, was little better.

The isolated areas of continuous, axial, monumental planning form however Rome's chief

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contribution to the art of civic design. To the Greeks they must have appeared crudely symmetrical; and there was artistic rigidity in the practice of levelling a hill to make site conform to plan—instead of modifying plan to fit site. Nevertheless unbounded fertility and resource, variety of solution and nobility of conception have made these groups the classic examples of complex planning. Outside Rome two examples may be given, the superb and sumptuous group at Baalbek and the more delicate composition at Praeneste, where a sloping site has not been ignored. In the great avenue at Palmyra 3,500 feet long with a central road of 37 feet and two covered colonnaded footpaths of 16 feet, Rome set out to eclipse the magnificence of the Hellenistic cities. The avenue, which has two bends cleverly masked with arches and pylons, connects the temples of Neptune and the Sun.

Pompeii, like Priene, would not have been of first-rate importance if it had not chanced to be preserved, in this case by Vesuvian ash: its plan consists of an original village in the southwest corner, probably pre-Etruscan, with large subsequent Etruscan additions made at different times. One, if not more, of these additions shows the long blocks of slightly trapezoidal form inherited from the Terramare. There were later Roman insertions and revisions, of which the Forum with its well placed temple was one. But the real importance of Pompeii, both popular as well as technical, consists in the preservation of a city in being, with all its working details

HISTORIC EXAMPLES : ANCIENT

and its signs of wear and tear, a vivid record of a stage in urban civilization.

Mediæval

With the Mediæval period (which conveniently may be said to begin after the year 1,000) the history of planning enters a phase of new importance: whereas many of our towns have a Roman skeleton, they are clothed in the flesh and blood of the Middle Ages; in many places there is much more of mediæval building than actually appears, for in the seventeenth and eighteenth centuries numerous façades repaired the ravages of time with a touch of Georgian rouge and cream. History, then, turns swiftly from the general to the particular, general knowledge, however, helping to solve the particular problem: thus the discovery of the first bridge over the Liffey gave the key of the original street system of Dublin and provided the basis for the modern plan.

There has been much unfair imputation to this period of neglect of planning and a consequent overcrowding and muddle, picturesque owing to architectural treatment, but insanitary. Actually the overcrowding is nearly always a later (frequently Renaissance) abuse of the original scheme, caused by the expense of removing and rebuilding fortifications which, after the change of system from mediæval towers and curtain walls to Vauban bastions and ravelins, became so prohibitive in cost that

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growing places like Vienna and Lille remained pent up until the middle of the nineteenth century. The same thing happened in England, even when there were no walls to justify this intense development. Examine a typical old English town like Tewkesbury : the main roads are spacious in the extreme, one of them 70 feet wide, and the continuously fronted houses had long gardens behind. What has happened ? the long gardens have been built over with rows of cottages facing on to narrow paths which enter the main streets under arches. Thus nobility of street design and fine façades are contrasted with narrow alleys and undersized cottages. In other towns the large blocks were boldly cut through by cross-roads and so intensively developed : it can be ascertained that a doubling of the population frequently resulted in little increase in the area covered by the town : the growth was intensive rather than extensive. Fortunately we possess many engravings of towns published from the end of the fifteenth century ¹ onwards, some showing town conditions that had changed little for a previous century or more : a careful comparative study of plans of different dates (which enables one to correct the fantasies of individual engravers) will give documentary evidence of the real state of mediæval

¹ Braun and Hogenburg of Cologne, whose work dates from about 1530, was perhaps the most industrious firm in issuing sets of town plans, usually in careful perspective. John Speed, Wenceslas Hollar and many others followed.

HISTORIC EXAMPLES : ANCIENT

towns as compared with their later corruption.

The little town of Furnes in Flanders, which has miraculously escaped the overbuilding of the Renaissance and Industrial age and the

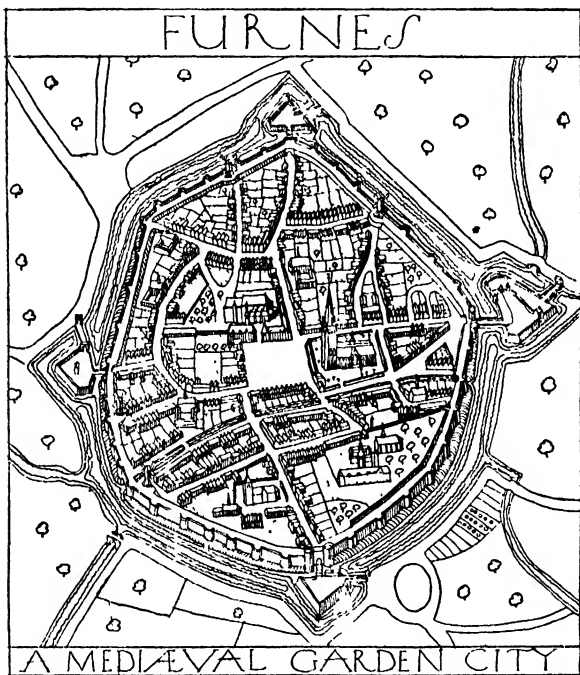


FIG. 8.

destruction of the Great War, stands to-day very little changed from its state as shown in an engraving about 1590. Here is the mediæval conception of a Business town, with its noble central place, its range of public buildings,

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including a cathedral, a great town church, town hall, law courts, etc., its houses continuously lining the streets, economically making use of every foot of frontage, but backed by ample gardens; the planning is not quite so regular as that of a Roman town, but its buildings are much more effectively placed; the whole might be called a garden city, completely realized, yet a community of frank urbanity.

For the greater part the mediæval towns fall into the two groups of those that grew gradually and those that sprang into existence on a new site, with the usual consequences on plan. The feudal age also produced a type of town which clustered at the foot of a great castle or church; this was a condition rarely found during the Pax Romana, but corresponded somewhat to the Greek Acropolis. But in the slow-growing towns, the mediæval age was to contribute a motive of first-rate importance caused by the need for continual fortification. As the town spread out it was necessary from time to time to enclose a new and wider ring with walls: thus was the radiation of roads completed by the circles of the walls, which left their mark even when pulled down. The growth was at first perhaps unconscious but the value of these circular roads must have been realized. Two old engravings of Bologna show this plan in process of evolution: in the first a square-planned city surrounded by a roughly circular wall is shown ready for expansion, for a new wall-circle is already being built. Between

HISTORIC EXAMPLES : ANCIENT

these two circles all square planning has been abandoned and roads radiate from inner to outer gates. The next engraving shows the area already partially filled on this new plan; and Bologna has continued to grow on this radio-cum-circular model ever since.

New town planning in mediæval times did not contribute much to Roman : it was on almost

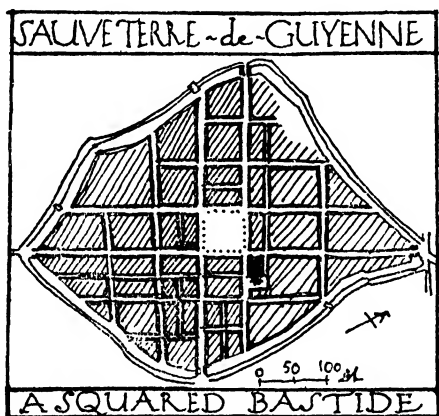


FIG. 9.

exactly similar lines and was on a similar scale of operations. Montpazier in Dordogne, one of the best preserved, shows the differences as well as resemblances : the building plots have a narrow back as well as a broad front approach : the market-place is arcaded so as almost to exclude wheeled traffic and the church is set back and to one side of it. Aigues Mortes, one of the St. Louis' bastides or new towns, which

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preserves its walls intact, shows the formal impressiveness of these simple regular rectangular towns, so different from the usual conception of picturesque mediæval fortifications ; in this it may be contrasted with Carcassonne ; each is designed to make the utmost use of opposite sites—the level delta plain, the rocky eminence. Edward I, one of the great royal town planners, extended his operations from Gascony to England and in North Wales built that fine series of castles and towns which still exists and of which Conway and Caernarvon preserve much of their outward appearance and possess equally beautiful settings. Flint, less attractive in many ways, is quite remarkable for its long narrow plots and the absence of all cross-roads except one ; it has also a rounded end next the castle. In England he was equally active : to consider a project for Berwick-on-Tweed the King summoned to a conference in Bury St. Edmunds fifty town planners described as “ wise men of the most knowing and most sufficient, who know best how to devise, order and array a new town to the utmost profit of the King and of merchants ”. London furnished four experts and twenty-three other cities two each : there can have been no lack of planners at this date ! Nothing actually came of these conferences, but the names of the planners of another of his cities, Winchelsea, are specifically given, Henry le Waleys and Thomas Alard. Winchelsea, by a freak of the sea, which overwhelmed the old town, has been left high and

HISTORIC EXAMPLES : ANCIENT

dry and was never completely built up : vestiges of its plan can be traced to-day far beyond the confines of the beautiful fragment that remains. The blocks are approximately square, with a central one set aside for the great church : only a portion was built, but this shows one of those departures from regularity caused by religious requirements : the town, probably to fit the site, was not exactly orientated to the points of the compass ; the church runs due to east and west, so it would have cut at a slight angle across its square, giving the appearance of a mistake in setting out. Two other examples of rebuilding of old towns upon new sites were Hull (also by Edward I) and Salisbury, somewhat earlier. This is the best example we have of the consciously planned cathedral city and it must be pronounced an entire success from the major feature of the noble spaciousness of the close and surrounding buildings, to the minor details of running water trickling through the streets.

Mediaeval *grouping* of buildings was more Greek than Roman in its assemblage of units ; but unlike the Greeks the units are not usually formal ; there appeared to be a sharp distinction between the ritual formality of the church and the topographically modelled castle, which may be seen side by side at Durham. The great Gothic Acropolis is Mont St. Michel ; one of the best of its compositions on a level site is the group at Wells. On street composition and other urban effects there are stiffly various views :

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Camillo Sitte considered them to be the result of elaborate systematized design ; others have held them to be merely fortuitous, brought into harmony by a common motive of design and use of local material. The streets and gates of

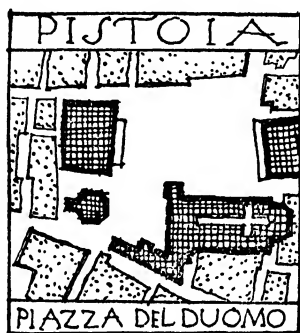


FIG. 10.

Rothenburg, the centre of Frankfurt, the piazza at Pistoia, the Grand Place of Bruxelles (in spite of a later rebuilding), show the rich and varied picturesqueness of mediæval design in which the degree of conscious aim or instinctive chance can never be exactly determined.

CHAPTER III

HISTORIC EXAMPLES : MODERN

The Renaissance

FOR the purposes of the history of planning, the Renaissance must be considered to extend from its commencement in Italy until the end of the eighteenth century : indeed, it might be placed a little later at each end, for Bacon's dictum that " men come to build stately sooner than to Garden finely " holds good also of site planning, which does not make its appearance till the Renaissance is well advanced into the Baroque and continues to lap over into the nineteenth century. During all this period, in spite of the marked changes of architectural style from Bramante to Adam, the planning continued to be practised on nearly similar lines. It was in the first place definitely architectural in character, aiming at magnificence of design in place of the more military, utilitarian and colonial objects of Roman and Mediæval. It might be suggested that the sumptuous Roman planning which was confined within the blank walls of their Fora and had only leaked out into the cities of the East, was now spread over the town at large. The Baroque was an era of public magnificence. It was also of strictly aristocratic

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origin, whether of the military potentate or the great landowner: again the parallel of the Alexandrian cities suggests itself. There was a third prevailing characteristic, besides these two architectural and aristocratic, perhaps, indeed, inevitably arising out of them. The city was considered as a monument or a work of art, framed apart from the surrounding country: it was not an embroidery or spreading growth upon the face of nature: only occasionally, in the extension, for example, of an old town, does it appear that the designers or promoters realized that a town is a growing organism: here, then, the Renaissance merely continued the Roman and Mediæval conception of the finality of the plan.

But if the plan was finite, there was no lack of variety of thought in its components, in strong contrast to the limited ideas of older periods. The number of projects and designs for ideal cities is astonishing; they fall generally into two broad groups—those which have a social basis and in which the city is a mere envelope for a new society, and those which are based upon defence and in which the city is sometimes of less importance than its enclosing fortifications. The schemes are in some instances realized on paper and sometimes not: More's *Amaurote*, "the worthiest and of most dignitie" in *Utopia* (1516), is of mediæval origin, streaked with Renaissance splendour, the houses "of faire and gorgious building, and on the street side they stand joyned together in a long row through the whole street without any partition or separation.

HISTORIC EXAMPLES : MODERN

The stretes be 20 foote brode". Continuous gardens stretch behind the houses. Campanella's City of the Sun is concentric on plan with the dominating temple on a hill-top in the midst; but he hurries through the description, to elaborate the system of government. Andreas's Christianopolis (1619) is more precise as a piece of civic design and is illustrated by a plan and perspective: it is square on plan and consists of five rows of buildings or hollow squares with corner and centre towers and a central circular temple. Everyone lives in tenements, in rather cramped quarters, and there is an interesting scheme of concentric zoning.

Perret de Chambéry is more a designer than a deviser of ideal commonwealths. His volume contains plans and perspectives for sample towns of various sizes to suit the pockets of potentates. They are exquisitely drawn and worked out in great detail: they are, of course, exactly regular, being all planned for imaginary sites, and their most curious characteristic is an almost total disregard of road planning; his buildings are dotted down in space, arranged to form groups but leaving anything that is over to serve for communications. Perret is concerned deeply with fortifications and so are the ideal plans made by Scamozzi, Daniel Speckle and others; bastions gradually grow in complexity, until in de Fer's treatise the town is sometimes left out altogether; and in the great Dictionnaire of Roland Levirloys (1770) we have the last word of the Vauban fortification technique, in which

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it is made almost impossible for anyone either to enter or leave the town.

The components that the Renaissance planner had at his disposition may be grouped under several main headings: these were sometimes fused together to make a composite plan, but more often were found somewhat disjointedly

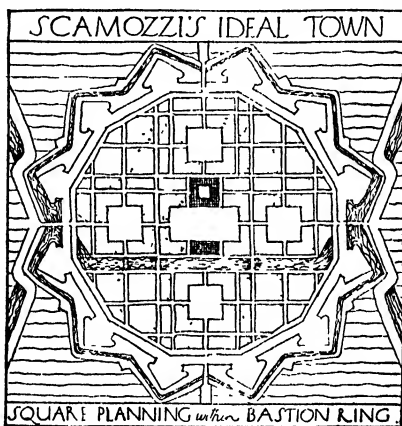


FIG. 11.

used, as though the designer had been now under one influence, now under another. It will be convenient to abandon any chronological treatment or grouping of examples according to countries, and to consider some of these chief Renaissance components of city planning separately, followed by a few examples of composite plans. This may have the practical drawback of jumping from one country to another and stepping from one century into another, but it is the only way

HISTORIC EXAMPLES : MODERN

in small compass to classify this mass of work.

The components of Renaissance planning or the influences under which the planners worked were five, and the following imperfect designations will be at once elucidated by examples : first, the Primary straight street ; second, Fortification ; third, Garden Design ; fourth, the Place ; fifth, the squared Plan or Chessboard. It would not be safe to say that any of these components originated at this time, but it is certain that they were more consciously employed and the technique of them perfected. By Primary Straight Street is meant the application of the same methods of road planning which the Romans had used in the country, to the town. The Roman town roads had, even the two principal streets of the Camp Plan, been really subservient to the building plot plan : it is true that national highways as a city grew (notably at Rome) would become engulfed, but without being welded consciously into a plan. But it was in Rome itself during the Baroque period that the new function of the city street was evolved, emancipated from being mere access to a building plot on the one hand and an urban extension of a national highway on the other. It is interesting that three of the most notable examples of this motif of design are found in existing cities : it might be suggested that on a clear site the Renaissance planner was more likely to be under the influence of a pattern plan evolved under one of the other motives. The completing factor of the straight road is a

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terminal feature at the end : it must not run straight through as the Decumanus did ; the monument at the end is the recompense, as it were, for walking along a straight road (devoid of the surprises and romantic charm of the twisting street) and economies are met by keeping the fronting buildings plain so as to enhance the climax—private simplicity and public magnificence. The great work of Sixtus V (1685–90) and his architect Domenico Fontana at Rome illustrates all these points : here was a case of a semi-derelict site to be opened up for building ; many of the monuments were already there, St. Maria Maggiore and the Lateran and other churches ; each length is thus made into an avenue of approach. The Piazza del Popolo is part of this scheme : the Roman Via Flaminia (the Corso) was already there, Fontana supplied two roads, one each side, so as to give the entrant the feeling that the city lies before him, accessible in all directions ; it is still the finest entrance to a city in existence ¹ ; the placing of identical churches on either side of the actual roadway is an extreme instance of the importance attached by the Renaissance to symmetry ; churches are not usually produced in pairs like china vases. The rigid adherence to the straight line, however, led to difficulty in connecting two levels along one of these roads : the via Sistina has had to wait for the ramps up to the Pincio and the via Babuino for the tunnel through the Quirinal to complete their routes.

¹ The completion of the Place proper is of later date.

HISTORIC EXAMPLES : MODERN

Two other examples of existing sites developed by main roads are Wren's plan for rebuilding London after the Fire and that of the Revolutionary Committee of Artists and Engineers set up to re-model the centre of Paris in 1793. Wren, even more than Fontana, had his fixed objectives : St. Paul's site, the Guildhall, London Bridge and the main roads which led into the



FIG: 11A.

destroyed area ; the chief merit of his plan consists in the bold simple way in which he connected up these points with straight streets, which provide the whole basis for this unequalled example of Renaissance Design. Though Paris had been remodelled on bold lines during the reign of Louis XIV, it was not until the Revolutionary Artists Commission propounded their daring projects (which Napoleon I partly realized and

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Haussmann improved and achieved) that the climax of this phase was reached. The only two points which can be extracted from this plan for present purposes are : the great straight road planned to approach the Louvre from the east (as the Champs Élysées, a garden feature, does from the west), which characteristically led up to the *front* of the Louvre (for which the Rue de Rivoli running *beside* it has been substituted) ; and a true example of Renaissance doctrinaire planning, consisting of a radiation of main roads according to the points of the compass from the Observatory : only one out of these eight main roads was really required, and that not for traffic, the Avenue de l'Observatoire.

L'Enfant's plan for Washington was the biggest example of primary street planning upon a new site. Here, after fixing the sites of the two main buildings, the Capitol and White House, for topographical reasons, the planner radiated therefrom a series of avenues : these two main foci together with some lesser ones create a complex system of radial planning, a feature which appears for the first time.¹ Unfortunately the system of building plots is a rigid Chessboard unaffected by these primary roads. Here is a clear example of the components not combined into a single chemical compound but existing like distinct layers one superimposed on the other. The practical result is that ill-shaped

¹ Possibly anticipated by Evelyn's plan for London and also inherited from the French Hunting Park.

HISTORIC EXAMPLES : MODERN

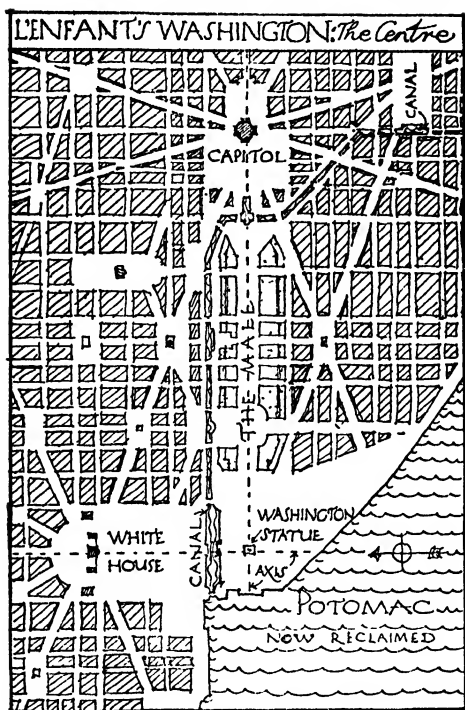


FIG. 12.

building plots face on to all the monumental avenues.

The Fortification component is of course nothing more than the mediæval fusion of the radial and concentric plan, the Spider's Web, used however in a more definite way; firstly as a motif of design, and secondly through the use of actual fortification rings as they have from time to time been abandoned. It was only

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to be expected that the designers of fortifications on the Vauban model, who naturally adopted a polygonal or nearly circular form as the shortest enclosure of the area, should turn their attention to the town within. Not only did the incessant wars of the period create a large number of purely military cities, but they caused nearly every Continental town to be enclosed with a similar circle, replacing the old mediæval walls. The circular and radiating plan became as usual as the square one had been in Roman and mediæval times, an alternative and equally precise motif of design. The Glacis or wide open space encircling the walls and cutting the towns off from the country and suburban growth also tended to emphasize the Renaissance conception of the town as a finite work and not a gradual growth. The little town of Palma Nova (1593), in the state of Venice is an almost perfect example of the fortification motif dominated by a central tower, and very attractive it must have been with its well-planned open spaces in the wedge-shaped sections. It shows that Perret's designs, which are apt to look like an old-fashioned pattern of linoleum, were actually realizable. Karlsruhe may be counted as an example of this motive applied to a non-military town. In spite of some earlier work the main design shows the radial principle applied in an interesting and original way. The tower of the castle is the actual centre point (a good illustration of the aristocratic plan) ; a large fan-shaped forecourt faces the city side, on the other is the

HISTORIC EXAMPLES : MODERN

forest. The same radiating roads are applied to city and park. A lateral entrance with central street at right angles to main axis and flanking streets, strongly recalls the Piazza del Popolo : and it may be remarked that the fusion between

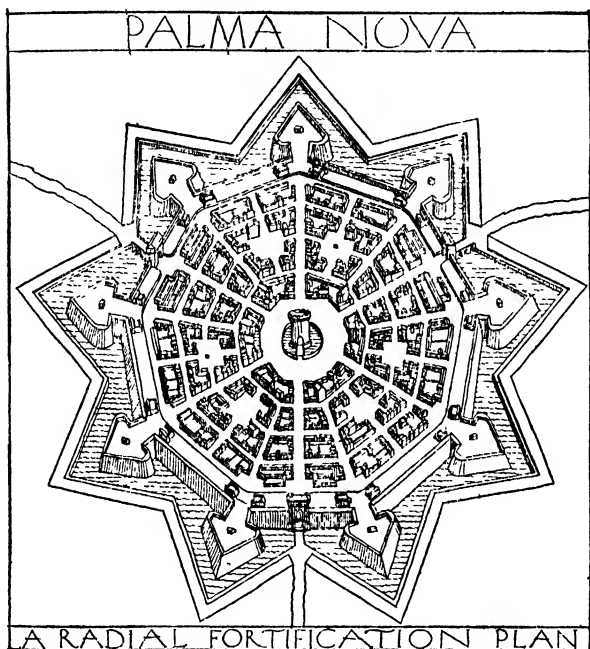


FIG. 13.

this primary straight street and the fortification motive is not quite complete.

The conversion of fortifications into boulevards or park rings has, since Paris led the way, through formation of the Grand Boulevards by Louis XIV's architects Bullet and Blondel,

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become a feature of Continental towns. The Paris Boulevards have been greatly surpassed in width by the later ring streets of Brussels and Vienna; and at Bremen the moat and bastion outlines are preserved and the space turned into a picturesque park, with a series of triangular gardens strung together on a continuous promenade. Moscow and Amsterdam are perhaps the

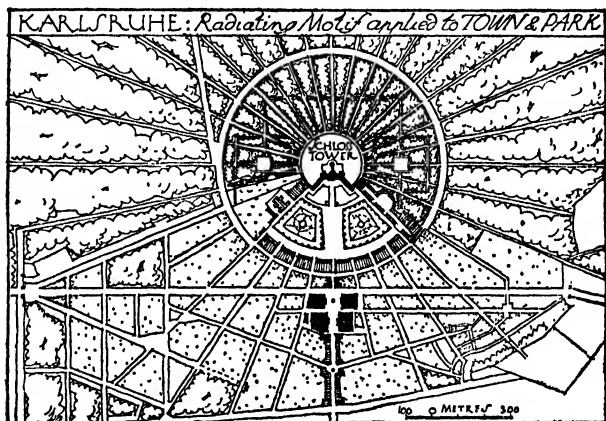


FIG. 14.

best examples of successive rings absorbed consciously into the plan. English towns, while they did not suffer the constriction of these fortifications which caused so much Continental overcrowding, have never had the chance of creating these superb rings.

The introduction of Garden Design was perhaps the nearest to an original idea in Renaissance town planning: so far as we know at present it was a

HISTORIC EXAMPLES : MODERN

new notion to bring the tree-lined avenue, the public garden and the grass sward directly into the city. Here again, as in fortifications, there is the motive of design and the incorporation of actual garden features as the town enclosed them. France appears to have been the medium for this innovation rather than Italy. The French extended the small highly wrought Italian garden into the vast formal park which their flatter landscape enabled them to do. Versailles is a whole countryside dragooned into regular design : the terrace at St.-Germain, a garden feature with an architectural balustrade, is backed by an actual forest, its front clipped so as to bring it into conformity. Working on this huge scale the house—or even the palace—was no longer the centre point : the landscape designer was working on the scale of a town and, as at Karlsruhe, he moved unconcernedly from town to park. There can be no doubt that the amazing versatility of design of such a garden planner as Le Nôtre has influenced subsequent town planning. The garden certainly produced that characteristic feature the “rond point” or focus of radiating avenues (distinct from the central motive of a city’s street plan) : the rond point was planned usually as an eminence from which views might be had in different directions and which often later carried a monument which defected this object—as happened with the Étoile and Arc de Triomphe in Paris. The garden planners appeared to be trying out effects, which could be translated

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from greenery into solid building; thus the elaboration of the simple spider's web into a plan containing several focal points whose intersecting rays set up the greatest complexity is due to the example of the hunting park.

The greatest example of the inclusion of a garden feature in a city is the Champs Elysées, which was the private drive to the King's Palace: to the discerning eye the right-angled bend from the Place de la Concorde to the Rue de Rivoli shows that public-wheeled traffic was not thought of when the avenue was planned. The Unter den Linden is a close parallel at Berlin, though its garden origin is not quite so apparent; it was, however, the private connection between the Elector's hunting park, the Tiergarten, and his palace on the island of the Spree.

It must be remembered that it was the formal School of landscape design which influenced town design: the irregular naturalistic School of the Jardin Anglais was not so likely to be translated, but in a later period its effect may be seen in the curving roads of a Bournemouth.

The Garden influence did not anyhow produce such magnificent results on English towns, but it permeated very thoroughly our eighteenth-century domestic site planning. Generally speaking our large parks were never dragooned into regular patterns; the English countryside and undulating topography being too strongly assertive for the drastic art of the formal landscapist. A valiant attempt was indeed made by the Duke of Beaufort at Badminton, who obtained per-

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mission from neighbouring landowners to carry his straight avenues on to the vista point of some distant church spire. Lord Bathurst's great park at Cirencester is the best example of monumental landscape welded to civic design: the main avenue of the noble park, five miles long, does not approach the house, but leads up to a city street and is focused upon the church tower.

The Place is the most varied and interesting of all Renaissance civic features. A direct descendant of the Greek Agora, Roman Forum and mediæval Grand' Place, it was rarely thought of as the climax of the traffic plan; indeed, it was their object to keep it a precinct, apart: "*une espace fermée*". The compartmental working of the Renaissance planner's mind is shown in the way places were built without any serious attempt to connect them with main schemes of town reconstruction which were going on at the same time. Thus St. Peter's Piazza and the Campidoglio are not related to the great street plan of Sixtus V.

The mass of material now becomes bewildering and only a few examples can be mentioned: they may be roughly classified under five headings: (a) the Forecourt; (b) the Monumental Group or Setting; (c) the Market Place or Forum; (d) the Traffic Place; (e) the Domestic Place; the divisions, of course, are by no means sharply defined.

(a) The St. Peter's Piazza is the grandest example of the Forecourt and one of the clearest

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of isolation from the surrounding streets: its colonnades, derived from the Roman forum, are used to mask the irregular and frequently mean blocks that edge up to it.

(b) The Monumental Group is best illustrated by the superb composition designed by Michelangelo for the Campidoglio and slowly realized; the three buildings and their ornaments and subservient features, including the staircase, are in the highest flight of Renaissance art. The French evolved a simple monumental place whose chief function was to form a setting for a statue: here the surrounding buildings are regular and unemphasized to enhance the central feature. The Place Vendôme in Paris is typical, but it must be remembered that it was designed for an equestrian statue of Louis XIV and not for the huge Napoleonic column. There is an equally beautiful place as setting for a statue, half-octagonal in shape, facing on to the river at Bordeaux. Indeed, it became a fashion to erect or design these settings for equestrian statues: the climax was reached in a competition that was held to commemorate the glory of Louis XV, the designers being allowed to select their sites in Paris. The architect Patte collected these grandiose memorials to "a monarch who unites to the most brilliant qualities of a conquering hero the touching virtues of a pacific King," into a large folio,¹ which is a veritable thesaurus of eighteenth-century monumental design; the

¹ *Monuments érigés en France à la gloire de Louis XV : MDCCLVII.*

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description of these appears to have plunged the author into an ecstasy, "*Donnons carrière à notre imagination,*" he says, and proceeds to eclipse by a thousandfold these too sober schemes. His "*Project d'embellissements pour les quartiers de la Cité et de ces Environs*" unites the two islands of the Cité and St. Louis, widens the Seine to symmetricalize the Pont Neuf, duplicates

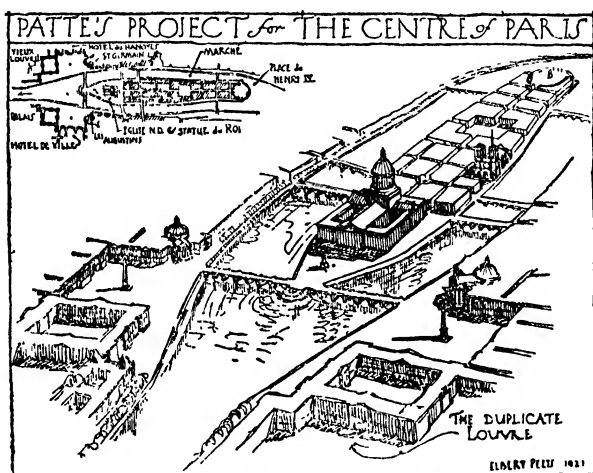


FIG. 15.

[From "Civic Art."]

the Louvre, provides two huge places with diagonal rotundas and centre obelisks on either side of the tip of the island, behind which is a new and colossal Notre-Dame ; in front of the church stands the minute statue of Louis XV, looking across the Pont Neuf to the tip, which is turned into a vast cascade falling into the Seine. The Monumental has here become megalomaniacal.

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(c) The Market Place or Forum is of frequent occurrence and perhaps the beautiful Place Royale at Rheims is typical ; but many examples of less formality are found in our English towns.

(d) The Traffic Place was not as common as would be supposed : the Renaissance idea of an enclosed space is difficult of attainment for traffic purposes. The entrance place of a city is more frequent ; the Piazza del Popolo is the prototype (its present form the result of much-varied effort) ; there are also the three remarkable entrance places in Berlin, Potsdamer, Leipziz and Pariser Plätze. As an exception Wren *only* uses traffic places in his London scheme ; even the setting for the Royal Exchange, which loses thereby ; but it shows his preoccupation, ahead of his time, with the overpowering problem of street traffic.

(e) The Domestic Place—by which is meant an enclosure with no more monumental object than that of uniformity within itself, is perhaps the most attractive contribution of the whole Renaissance period. If it may be said to have originated in the Place des Vosges in Paris (only slightly more domestic than the Vendôme), it certainly became the speciality of England. Our particular national development of the idea resulted in whole areas laid out with a series of places, often of diverse shapes, leading one into another. The prevailing secondary characteristic is the contained garden, common to the surrounding houses, but not public and never enclosed by a wall. This garden was also usually

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laid out with irregular planting in sharp contrast to the formal enclosing architecture. The London squares, of which those in Bloomsbury are still, many of them, intact, were not particularly interesting in shape, though charming in their refined buildings. Much bolder and more varied is the famous connected group of Queen's Square, the Circus, the Crescent at Bath designed by the Woods, father and son (1728-75). The Royal Crescent, in which domesticity reaches a truly monumental but restrained grandeur, is an example of aristocratic and architectural result obtained without pressure on the part of landlord or architect; the uniformity of external effect (for the house plans vary) was obtained as a result of a common inclination towards restraint of individualism. But the most extensive example of domestic place planning is the New Town in Edinburgh; built in several different stages (the first by Craig) it makes London and Continental residential planning look bald and jejune in comparison with its interest, its varied arrangements and shapes. In none of these examples from London, Bath or Edinburgh was through traffic considered: indeed, it would be the aim of the designer to exclude it, or at any rate not to encourage it.

The Chessboard influence is the most ubiquitous—it makes its appearance by snatches continually throughout the period, combined frequently with other motives. It is often used for the simple street plotting in an elaborate

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scheme, and it is then the test of a planner's real skill; nothing, for example, is a clearer testimony to Wren's mastery than the easy way in which he moves from grid-planning in his central part to radial planning at each end; this should be compared with the rigid clumsiness of the street plotting of Washington. It is also quite skilfully combined in the Noble quarter at Berlin with the Unter den Linden and the three entrance-places already mentioned. Perhaps the pleasantest Renaissance use is on a small scale as a revised and enhanced form of the Roman plan. Several fortification schemes have the town squared within upon these lines, notably Leghorn and the well-known design of Scamozzi. There are two charming French examples, Richelieu, the little appendage designed by Lemer cier for the Cardinal's chateau, complete with architectural treatment; and the much later Roche-sur-Yon, enclosed within a pentagonal boulevard. Paris, which in other respects is a compendium of Renaissance planning components, is devoid of any continuous stretches, except the Ile de St. Louis, which remains unchanged since the seventeenth century. Mannheim, founded about the same time as Karlsruhe, is perhaps the most important Renaissance chessboard layout in Europe. The Royal Schloss backing on to the Rhine faces down the main street across the Neckar; at a later date a semicircular ringstrasse has been added.

It is in America, however, that the chessboard or gridiron has been not only the foundation of

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design, but has formed the method of cellular growth. Penn's plan for Philadelphia has had the greatest progeny of any theoretic scheme. Taken by itself it is practically the Roman plan with a square at the intersection of the two main roads, meant to be left open but unwisely filled in by the great city hall. Other towns, such as Chicago, had not even this central feature, but grew illimitably in square cells of uniform size. The base lines of the land survey for the whole country were utilized for the plan, and so a detached suburb or satellite miles away will be planned upon the same north and south base lines. The New York plan, as designed by a commission in 1807, extends from the irregularly planned tip for nearly nine miles along the peninsula without break, except when the indentations of the coast bite pieces out of the rigid pattern of streets. The plan is almost identical with that of Carthage except that the long rectangular blocks are at right angles to the coast instead of parallel with it. The Commission decided upon the rectangular system on the ground that a city is "composed principally of the habitations of men, and that straight-sided and right-angled houses are the most cheap to build and the most convenient to live in". The apologia for the cellular method could not be better expressed.

The disadvantage of this analysis of Renaissance planning by components is that it leaves certain examples—especially composite ones—

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undescribed. Wren's plan has been several times mentioned—it is impossible to describe it fully without large scale plans. Another admirable lay-out, a little difficult to classify, is the Pulteney Estate at Bath, with its primary straight street and terminal feature, the old Sydney Hotel in its hexagonal park. More famous still is the Nancy group, really a piece of continuous forum planning, in which the large place is cut off from the town by wrought-iron grilles. There is also the exquisite plateau reconstruction at Bruxelles, combining the Park, Place Royal and surrounding Palace and Parliament House: this area, originally self-contained, has been admirably worked into the enlarged plan, including the vista on the gigantic Palais de Justice. Washington, too, has received less than justice: L'Enfant's conception of the Capitol facing down its Mall intersecting the axis from the White House on the point of the Washington Memorial, both centres of converging avenues, is in the true manner of Renaissance logic and splendour.

The Nineteenth Century

As has already been remarked, the impetus of the eighteenth spilled itself over into the beginning of the following century. In Paris, Napoleon Bonaparte set himself to carry out the Revolutionary artists' programme; it was languidly continued by the Restoration, even Louis Philippe being quite content to complete the monuments to the usurper; and, finally, with the accession of Napoleon III, we have from 1856

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onwards the work of Haussmann, which still holds the field as the classic example of bringing an old town up to date.

In England the history of planning was more eventful and disconnected : the French Revolution and Empire was much less disturbing than our Industrial Revolution and the Middle-class Domination of the Victorian age. For the first thirty years the change was not remarked : Nash carried out London's greatest piece of continuous planning, his Regent's Park and Street ; this scheme was on quite a different scale to the earlier Domestic Place planning, for it combined park design, a primary street (not quite *straight*, showing Nash's advance beyond the strict Renaissance limitation) and imposing traffic places, the whole clothed in a consistent and magnificent architectural treatment. Outside London, too, there were a few signs : at Newcastle, Richard Grainger and his architect John Dobson replanned and rebuilt (1824-34) the centre of the city, in a style that has not since been surpassed in this country, the great new railway station being subsequently brought into the scheme. Birkenhead, when it set out to rival Liverpool, on an uninhabited site, called in advice from Edinburgh and had a plan prepared consisting of a magnificent central square, a large area of Gridiron planning and a park ; there was also an interesting scheme of residential zoning by which the park separated (or combined for recreation) the artisan population and the merchant princes. The plan is there, the buildings

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only fragmentarily realized, but Hamilton Square (named after the architect) and the park (landscaped by Sir Joseph Paxton) are enough to show that the will was there though the financial impetus to realization failed.

And then suddenly (as it would seem) the bottom dropped out of this tradition of English planning¹: nowhere can this be seen more clearly than in Edinburgh. A great competition was held for the extension of the city northwards of Calton Hill along Leith Walk and, as late as 1834, the sanguine map-maker showed this new quarter carrying on the tradition of Craig's New Town. He was premature: the actual building shows no design, no grace, no gardens; the subsequent nineteenth-century growth is devoid of all three. In reality the break was not so sudden as it appeared. Already, while the ground landlords had been laying out their estates, while the fashionable world had been building up the Bath Crescents and the illuminati of Edinburgh creating their New Town and the neo-acropolis of Calton Hill, the manufacturing towns of the north and midlands were growing very differently. The same principle of individual estate planning, which had worked so well with the big owners, was to prove fatal in the case of small separate lots purchased by speculators from the large estates and developed to exploit the requirements of a suddenly expanding industrial population. It is idle to try to blame

¹ Reference to the later nineteenth-century efforts in Continental planning will be made in the next chapter.

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individuals or even classes : “ the real tragedy of the Industrial Revolution,” as a recent writer ¹ has said, “ lay in the fact that it demanded an utterly different type of mind to effect the necessary adjustment of life to its new conditions than had sufficed for the requirements of eighteenth-century civilization.” The philosophers and economists of the age were carried away by the mere idea of growth and production : “ Produce ! Produce ! Were it but the pitifullest infinitesimal fraction of a Product, produce it in God’s name ! ”

We may discern three periods of this Industrial town production, the second and third slight improvements on the first, but neither of them attaining to the standard of a real plan of action. During the first there was practically no control or guidance of any sort, courts and alleys of any density and width, underground cellars, flood-lands and marshes, anything might be utilized and anyhow. It was considered convenient to crowd houses as close as possible to factories so that the workers should lose as little time as possible ; no one stopped to think of the double disadvantage of making the houses unhealthy and giving the works no room for expansion. By about 1840 it was realized that something must be done, and from then onwards a series of Sanitary and Public Health Acts were passed which effected some slight improvement in such matters as drainage, cleansing, water supply, lighting, etc., but had little effect upon planning.

¹ E. Wingfield-Stratford, *The Victorian Tragedy*.

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One special type of house unit continued to be built, a unit that tended to produce a certain type of street plan—the back-to-back house. In this type a house had one side exposed to air and light only, the other three were enclosed by side and back neighbours. It was a low-grade house type, making the street or front garden the only yard for all those household affairs that need to be done in the open air. It produced, of course, an extremely compact street plan. It may still be built in some Yorkshire towns to-day.

The third period of Industrial England was ushered in by the great Public Health Act of 1875. An enormous advance in many directions, it perpetuated the planning of the town by duplicating the House Unit—the cellular form of growth in its extremest form. The “Model By-laws” prescribed the size of rooms, the space behind the house and the width of road in front. If these things were satisfactory, each house supplied with air, light and access, what more could be wanted? The by-law period of town planning has surrounded all our business towns with rings and quarters of houses at an average density of 40 to 50 per acre, and has planed away every feature of natural interest and beauty. The only structure which these towns possess is given by the old country roads which penetrate through these blocks of by-law houses. The chief practical defects of the system beyond lack of any general plan, were found in the roads—these were not graded to suit traffic requirements as they had been in ancient Greek towns,



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but standardized to a width (usually 36 feet) which was too wide and expensively paved as an approach to houses and which at once proved too narrow if it chanced to become a traffic route.

BY-LAW PLANNING

between two older radial roads.

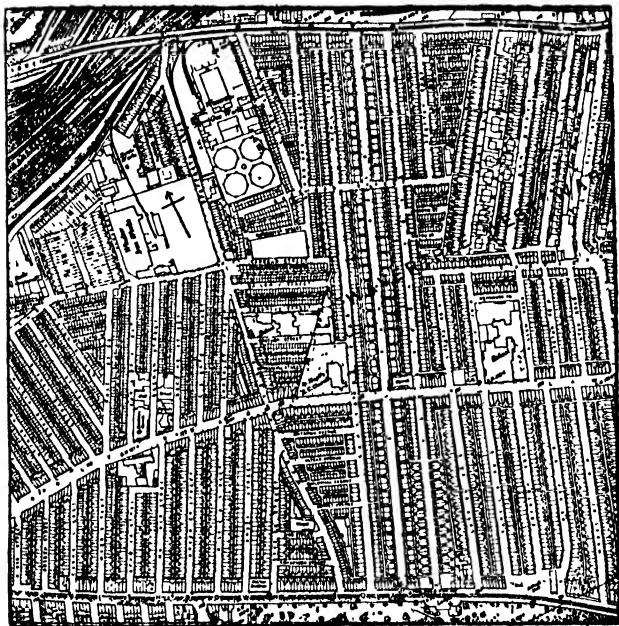


FIG. 16.

Another singular use of roads was that of breaking up the length of the terraces—which otherwise were only limited by the length of the owner's property—by means of a cross-road; this served no purpose for house frontage or traffic requirements, but was a needless expense

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imposed blindfold by the by-law. The planning of individual property lots, to enable each owner to obtain the maximum permitted number of houses, still continued, to the incredible inconvenience of the inhabitants. Such was planning by by-law from the house unit upwards.

And yet it is instructive to find that a town on a new site which has a dominating natural feature and also an industry with marked requirements could, during this period, unconsciously evolve a plan of practical arrangement—only requiring the additional touch of the planner to give it reality, and of the architect to make it attractive. Middlesbrough, dating from the middle of the century, has not achieved, as was predicted of it, the position of the Florence or Bruges of the modern world, but the diagram of its plan had great possibilities; in the space between a sharp bend of the Tees and the railway is the great Ironmasters' District with excellent access to rail and dock; the railway forming the boundary on its south side at the exact centre has its station giving directly on to the civic centre with the business and shopping centre grouped round; beyond in a rough fan spreads the more urban residential area—then a belt of open space and beyond the looser suburban tracts. But the execution does not come up to this scheme; an early housing area has been allowed to protrude into the iron district obstructing the river crossing; the radiation from the centre just misses adequate expression; there is no provision for through traffic going east to

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west along the river ; there is little to detain the admirer of the commercial cities of the past.

It was unfortunate that just at this period of lowest ebb in England's control of urban growth

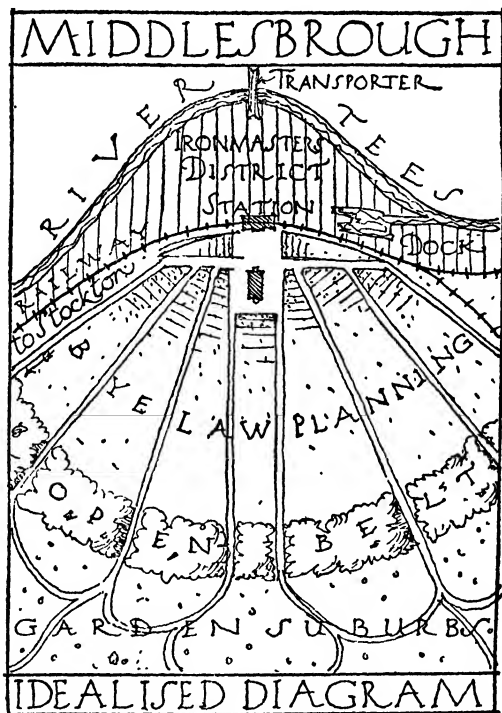


FIG. 17.

and when the onrush of town building was commencing, the Railways should enter upon the transport scene. Hailed as the prime symbol of industrial success and so armed with despotic powers, they became a new tyrant dominating

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our cities with much less regard to the general convenience than had the old aristocratic planner. One has sympathy with towns like Barnsley which kept at arm's length the blundering intruder—and yet this was the ostrich's plan of escape. High embankments cutting off normal growth, level crossings holding up traffic, ill-placed railway stations, wastage of valuable central space for sidings—these and many more are the disadvantages resulting from the railways having been considered apart from general planning requirements. Middlesbrough was an exception, partly owing to railway and town being almost simultaneous, and partly to good luck.

From this centre point of the century onwards there begin to appear glimpses of a fuller treatment and even of new ideas altogether.

“ Sur la ville, dont les affres flamboient
Règnent, sans qu'on les voit,
Mais évidentes, les idées,”

as Verhaeren, the poet of town planning, says in “*Les Villes Tentaculaires*”. The 1851 Exhibition was one of the new stirrings for which the Prince Consort was responsible; and Disraeli, Dickens, Kingsley and others, either by criticism of present evils or suggestions of possible improvements, set people thinking. Three more precise attempts may be mentioned: Robert Owen's satellite experiments, James Silk Buckingham's projected City of Victoria and Sir Titus Salt's village of Saltaire.

Buckingham's Victoria is indeed a remarkable

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idea, worked out in great detail and clearly illustrated. He proposed a real town of urbane quality, going back almost to Christianopolis for his plan, but infusing the description with modern ideas without, however, suggestion of a socialistic polity. He is sufficiently advanced to see the necessity of a *rapprochement* between town and country; indeed he treats farm and factory on precisely the same basis; both are outside the town proper and the workers in either occupation, living on the outer fringe of the town, are equally well placed for their daily passage to and fro. The only work buildings he allows within the city are workshops for light trades which would not inconvenience the inhabitants. Within the outer country belt he places playing fields, hospitals, cemeteries, cattle markets, abattoirs, etc., and sites reserved for suburban villas for such "residents as might desire". But he does not think much of the country villa idea himself; he is in fact a true urbanist, who in planning an ideal town considers the centre and most artificial part the best in every way. There is indeed a crescendo of interest artistic and social, converging towards the midmost point. He is not without his solution of the problem of growth: it is not to straggle out from his four-square city; he devised the satellite method: "smaller offspring might be formed, fostered and assisted as Home Colonies by the Parent Town from whom they spring—as Tyre was settled by the surplus inhabitants of Sidon, of which she was called

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the daughter.” His notions of density were also modern; taking the whole city proper there would be only 16 people per acre, but in the residential areas about 56, which is about the same as our present housing schemes show—but there is no suggestion of detached houses—they are all in continuous terraces.

Buckingham was convinced that his idea would be adopted and that England would eventually be covered by Victorias and their offspring. For these future towns “plans of greater variety in architectural elegance would be produced, when the certainty of large profits from this (the first) should be established, and when more exuberant and more costly ornament may be fully introduced”. For the first city “simplicity, convenience and economy are the chief consideration, though ornament has not been neglected”.

The vision was indeed remarkable in an age that did not rise above the Shaftesbury Housing Acts and the Public Health Acts; Buckingham’s volume on Victoria came no nearer to realization than his pamphlet on *The Benefits of Uniting the Ganges with the Clyde*.

Titus Salt *did* build Saltaire. Though a small matter compared with Victoria, being a village planned for a single factory in Yorkshire, it contained in it the germ of the industrial village which was to flower in Port Sunlight, in contrast to Birkenhead. The relation between Salt’s village (founded in 1852) and Mr. Millbank’s factory and village in *Coningsby* (published 1844) is very

HISTORIC EXAMPLES : MODERN

close ; Disraeli lived to see his ideas carried out.

There is, however, no suggestion of the garden village in the houses ; they are in terraces of twenty-two disposed according to the later by-law model with backyard passages and front streets. But at any rate it is a plan, an arrangement, providing for home, work, education and recreation. The church balances the factory in true Victorian manner : the school faces the "Literary and Philosophical Institute" ; the almshouses are charmingly planned ; and there are rest parks and a well-designed recreation ground.

In another direction the awakening spirit was observable in central Birmingham : about the time of the passing of the Public Health Act (1875) with its house-unit theory of planning, Joseph Chamberlain set about remodelling central Birmingham on the Haussmann scale of comprehensive planning ; Corporation Street has real civic dignity, crowned by the fine terminal campanile. Its aim was the full civic programme of eliminating slums, re-housing elsewhere, and re-use of land for business purposes.

But it was outside Birmingham that the true vein of English Town development was discovered, when the garden village, originally, like Saltaire, the appendage of a factory, was definitely evolved at Bournville. The English are countrymen rather than town dwellers by long contracted habit. In spite of the eighteenth-century formal town additions, in London, Edinburgh, Dublin and the spas, the successful

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city man spent all his building money on a country house and a model village. When the least urbanly inclined country in Europe became the most intensively urbanized, the wealthy were confirmed in their habit of clearing out of the town as soon as they could—every evening while it was necessary to work in it, and finally when they had made sufficient money or had turned their private businesses into public companies. The initiation of English Town planning came characteristically from the individual: did not Voltaire say that every Englishman was an “island” in himself and was not Britain the only country strong enough to withstand Romanising uniformity, as may be seen at Silchester, which is a collection of veritable *insulæ*, the whole plan squared up, but each block an individual holding? The house, the home of the middle-class and working-man, built in endless rows and facing on to endless streets (devoid of the urban charm of the continental boulevard), was taken as the starting-point for reform. The garden suburb of the wealthy was at least a century old. It was now time to democratize it. The house in a garden is the symbol of our individualism (which alone in Europe had stood up to Rome) and the sign of the penetration of the country into the town. The problem consisted in reconciling the individual house to the requirements of community planning. It was here that the garden suburb and village jumped clean ahead of the by-law propagation of units.

CHAPTER IV

INTERNATIONAL CONTRIBUTIONS TO THE MODERN SUBJECT

THE modern subject of the planning of towns and country is not the invention of any one nation or group of individuals. It has been evolved during the last thirty or forty years as a result of a real international pooling of experiment and experience. The nineteenth century, which in the last chapter appeared to little advantage in England, was the crucible, particularly the latter end of it, in which ideas were tried and tested. It is interesting to find that countries have specialized, as it were, in certain directions—often leading to a one-sided form of development ; but the intensity of their zeal in this one direction has made their contribution authoritative and even exhaustive. An integration of these different aspects has been taking place and it is now possible to discuss a theory of planning which is at once flexible enough to apply to different countries, with their particular climatic and racial condition, and at the same time provides for the common requirements of modern humanity everywhere. There will never be complete internationalism in this as in any other subject,

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hence the continued value of the exchange of national opinion.

The contributions, accordingly, which are to be described must be considered to date from the recent past and to be already incorporated in present practice. It must not therefore be assumed that the limitations mentioned in this chapter still obtain to-day.

France's contribution may be considered first because it principally dates from the earlier part of the formative period. It may be described as a continuation of Renaissance principles of design, to bring an old town up to date; traffic requirements are dominant but always with an eye to a fine effect; slum clearance was chiefly confined to piercing the decayed quarters with fine new streets, there was little re-housing; parks were provided, on what is now considered an inadequate scale, but the main street is always given its promenade or boulevard import; architectural treatment is kept subservient to the town plan and harmonizes closely with Renaissance and First Empire precedent, while remaining quite distinctive. Paris sums up, but does not entirely express the country. Napoleon III is responsible for the impetus; he began during his presidency and actually drew the first maps himself. There is no doubt that military considerations were of first importance—straight roads, strategically placed barracks, squares for assembly of troops, etc.—but it is a mistake to suggest that this compromises the work. From 1856 Haussmann was

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in charge with Deschamps as his civic engineer and Alphand as landscapist : the verb to haussmannize sums up the methods of these four. The value of autocracy in planning (the Renaissance method) is to be judged from the amount of work done in less than twenty years. It has taken the Republic sixty years to cut through the few yards that separated the Boulevard Haussmann from its eastern objective, the ring of the Grands Boulevards.

The town which Haussmann was called in to modernize already contained most of those civic features for which Paris is famous : the Champs Élysées and Arc, the Rue de Rivoli (the part alongside the Tuileries), the Esplanade of the Invalides, the Champs de Mars, the Avenue of the Observatory (leading to the Luxembourg and Gardens), the Place des Vosges and Place de Vendôme and the Grands Boulevards ; what except the Opéra, one asks, was there to add ? But a careful study of the plan in Louis Philippe's time shows how disjointed, how ill-connected the street plan was and how imperfect in their setting were these separate jewels. Haussmann straightened up Paris ; produced a workable scheme of circulation ; completed the rectification of the main Roman cross-roads " La Grande Croisée," begun by Napoleon I with the Rue de Rivoli (east to west) and by Napoleon III by the Boulevard de Strassbourg (north to south) ; corrected the south half of the inner ring by means of the Boulevard St.-Germain (Bullet and Blondel, Louis XIV's architects, had

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put it too far out); provided useful diagonal lines, the Boulevards Haussmann and de Voltaire; remodelled the Bois de Vincennes et de Boulogne, connecting the latter by its avenue to the Champs; replanned the whole setting of the Arc de Triomphe; and carried out many, almost innumerable, lesser works between the

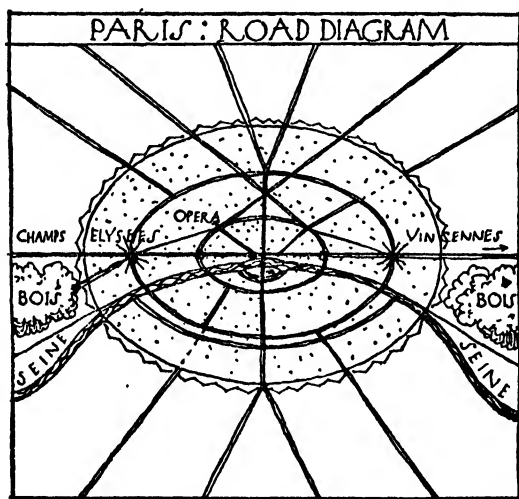


FIG. 18.

years 1856 and 1870. He has been most criticized for his chief original monumental effect—the Avenue and Place de l'Opéra which, with the use of the Rue de la Paix, is his most ingenious piece of street symmetry. The architect of the Opéra, Garnier, wished for an enclosed setting—the Emperor supported him—but never-

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theless he got Haussmann's favourite diagonal sliding street plan. The effect of the avenue and its terminal feature is, however, superb, if it does not possess the complete artistry of the greatest Renaissance set-pieces. Indeed it is instructive to compare this transformation of Paris with the scheme proposed by Blondel in 1768 for Strassbourg ; here traffic is subservient to monumental treatment. Haussmann has also been criticized for his passion for the vista ; Napoleon quarrelled with him for crossing the Seine diagonally to centre upon the distant dome of the Pantheon ; less justified is the little dome upon the Tribunal de Commerce which he had designed for his Boulevard de Sevastopol. Certainly where he has no terminal feature and an unduly long straight street, as the Rue Lafayette, he becomes dull. It is fashionable to belittle Haussmann ; nevertheless, his work, in which he straightened up and completed the disjointed units which had been left after two centuries of spasmodic but artistic planning, forms the best example of clear-headed logic in town-modernization. The city has a unity of conception in plan, in architectural treatment and in landscape design (this latter, as has been described, was a unity of intentional contrast) which cannot be denied. Here is a portrait of him to place beside that of Hippodamus : it is the lively Persigny's first impression when Haussmann came up from Bordeaux : "He was big, fat, strong, forceful and yet subtle. . . . I enjoyed in advance the vision of that huge beast of prey let

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loose among the wolves and foxes that were barking against every noble effort of the Empire."

The Haussmann method is found elsewhere in France—rather brutally eviscerating an old city, as in the central Boulevard at Avignon : much more successful is the new town added to Lille in 1860 which, without Parisian liveliness and historic memorials, and with a certain bleakness about its Place de la République, is yet a much finer business quarter than anything that Manchester, Leeds or even Birmingham can show.

Another distinct contribution of France is the exact study of Town services and statistics, which dates from 1860 with the foundation of the Bibliothèque Historique de la Ville de Paris.

Germany presents the greatest bulk of material for this comparative study. The earlier period corresponding with the French and continuing later was extremely dull—largely chess-boarded extensions, with crude architectural treatment : much of Charlottenburg and whole quarters of suburban Vienna are of this monotonous type from which all Renaissance grace has disappeared. There were, however, fine railway and other places and a large number of Ring streets. The quasi-independent States and free cities possessed traditional right of control—what has been called "a Town-planning Competence"—so that without despotic power or even special legislation (e.g. the two Prussian Acts of 1874 and 1875 deal chiefly with the making of streets and

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expropriation of property) the growth is controlled with meticulous care as a matter of course. The administration, also, of a permanent or salaried Mayor or Oberbürgermeister made for continuity of treatment.

Into this dull but competent world burst the bohemian figure of Camillo Sitte, whose book *Stadtebau* (*Town Building*) was published in 1889; his doctrine was completely revolutionary and set Germany upon the path of a national style of town planning. Described as a romantic because he sent people back to study the old towns and exaggerated the conscious effects of ancient charm, he really set a nation free from a classicism of which they had lost the thread (or perhaps never completely assimilated in spite of Teutonic Baroque and Schinkel's neo-Grec) and made people study the *site* for new areas and the *surroundings* of old buildings. His theories were at once burlesqued by a horde of imitators who planned haphazard hit-and-miss streets throughout the country; but this phase soon passed and left a much freer and healthier form of street plotting which may be seen in the plans for Düsseldorf, Cologne and most other German cities. Sitte's own design for the little town of Marienbad, near Vienna, is entirely charming; but his attempts to break up the Vienna Ring Strasse showed that he quite failed to grasp the real object of that great town achievement. Sitte is much happier in his plea for the tender handling of old quarters and his denunciation of the practice of stripping

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every old building bare of its friendly neighbours.

Frankfurt may be taken as an example of a city which includes most of the notable features of Germanic planning; there is the mediæval centre admirably conserved and yet put to full use—a great contrast to Haussmann's summary treatment of old Paris: enclosing the business centre is a typical ring in which the bastion shape is still partly kept, in gardens; beyond is a great extent of rather dull nineteenth-century planning, but containing an ample main station place; there is not much of the later Sittesque romantic planning, but the new harbour quarter at the east end is one of the best examples of German commercial, industrial and residential planning, worked out with great care for details; docks, wharfs, factories, railways, housing sites, parks, tree-planted streets are all inter-related and given due prominence. More recent housing developments for which Frankfurt, like other German cities, is well known, come within the period of modern planning.

In the early part of this period of German Planning too much attention was given to universal wide roads and too little to the plotting of the land for building—the roads are imposing—as may be seen in vast areas of Berlin and Charlottenburg—but the price of land has been raised by lofty tenements which in turn were the result of deep building plots and wide roads. It is a very complex question of interaction, but the net result has been the extremely high price

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of building land. To counteract this, there is the Building Zone plan—a most important contribution—by which in different parts of the town the buildings are limited in the number of their stories, the amount of ground they can cover and the use to which they can be put. Germany in fact invented the machine of Zoning (including the actual and very unsatisfactory word).

The administrative powers are also of first importance : (i) The right of the city to declare what land is ripe for building and what not (a power it can be seen which could easily lead to the exercise of undue pressure), thus preventing extravagant straggling. “ In order that a site may be built upon at all, however suitable it may seem in the eyes of the owner, it is essential that it shall be formally recognized in the building plan as ready for the purpose and shall lie upon a street duly planned for the purpose by the local authority.” (ii) The power (first used by Frankfurt under the *Lex Adickes*) of pooling and redistributing ownership after planning. Both these powers enable the authorities to prepare their plans in exact detail and to decide when and where such detailed plans are required. The preparation in detail of every road, building plot, place, tree planting, sites of possible buildings and public gardens is the normal procedure ; the amount of this careful and on the whole excellent detailed planning which was completed in the last twenty years of the nineteenth century was enormous ; each town went into

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the same detail that an estate owner would do with us.

Vienna is almost a country to itself in the matter of planning. The Ring Strasse is the biggest single piece of civic transformation in Europe : the space, over $\frac{1}{2}$ mile, left round the fortifications, was completely encircled by suburban growth when the transformation took place in 1858, so that high urban values were at once obtainable ; and the bottled-up energy of a growing capital, pent up during six hundred years, burst forth over this enclosed space. It was the most magnificent opportunity that has yet occurred for the creation of a great encircling boulevard, a series of parks and monumental buildings which included a parliament house, palace of justice, town hall, royal palace (addition), national museum and gallery, university, state theatre, opera house, concert hall, royal exchange : these and others were all built as part of a considered scheme in the space of thirty years. Contemporary with the Parisian transformation, nothing could be more contrasted æsthetically : in grouping, the Viennese eschews the avenue and vista, and relies upon the changing perspectives of buildings seen from an angle ; it is called ring grouping and, though formal, bears a closer resemblance to Greek than Roman methods. It must be confessed that the effects aimed at in this grouping are not realized owing to the colossal scale of the compositions and the interposition of woodland parks. The other contrast with Paris is in the

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extraordinary variety of architectural treatment: Greek, Gothic, Early Italian, French, German Baroque and Renaissance examples are seen somewhat like huge models from an architectural museum. In spite of defects and largely owing to superb planting the Ring is a great monumental feature. The old centre has not

VIENNA

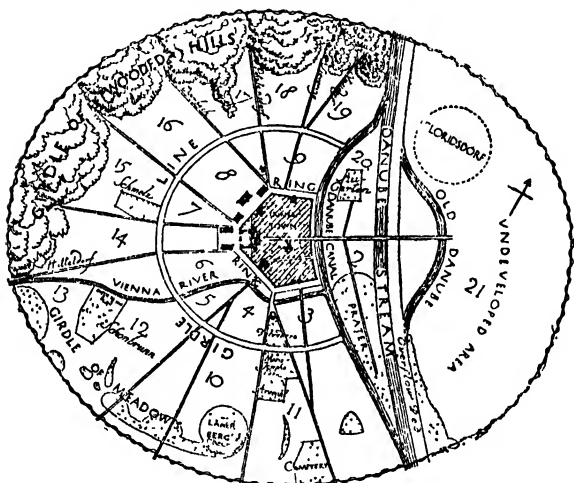


FIG. 19.

been modernized and so provides a sharp contrast of narrow streets and the continuous character of eighteenth-century baroque buildings: the Ring Strasse is the real centre of life, business, pleasure and transport. Vienna has another claim for consideration: it has surrounded itself with a wide "Girdle of Wooded Hills and

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Meadows" linked up together; this is the earliest European example of an outer park system which is being copied by Cologne and other German cities.

England's contribution, as has been said in the last chapter, is one-sided but of first-rate importance. Nearly all continental town housing was tenemental: England produced the low-density garden and house type of residential planning. It did not necessarily supersede the town house or the tenement block, but it provided an alternative. The movement is too well known to need recapitulating, though a single term to describe it adequately has not yet been found. It may be divided into three stages chronologically: first the garden-village, usually industrial and carried out by a socially-minded owner for his factory employees, the well-known examples being Port Sunlight, Bournville and Earswick; these were readily contrasted with surrounding contemporaneous by-law property, but there was originally no attempt to make them narrowly economic propositions.

The next step was the application of this method to a whole *city de novo*, by Ebenezer Howard, who in his book *To-morrow* (1898) broached many ideas new to practical planning, but some of them based upon earlier Utopias; Ebenezer Howard realized his Utopia and got Letchworth built to prove his thesis that, as the town was overcrowded and overgrown and the

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country depopulated, an attempt should be made to fuse them by distributing growth in new centres, each forming a planetary system, with sun city and satellites. The central town was to be limited in population and surrounded by a belt of agricultural land. Thus the method of growth was to be that of nuclei spawned off from the central body, each surrounded by its atmosphere of country. Other features of the scheme were municipal ownership of land, forethought in street planning, zoning and grouping of public buildings. Letchworth has been built upon this basis ; it has not yet reached its limit of 32,000 and therefore the satellite growth has not yet occurred ; but its continuous increase has demonstrated the feasibility of advanced ideas. Welwyn, the second garden city, has more definite connection with London ; but it is always understood that complete purity of type is not obtainable ; Welwyn has surpassed Letchworth in architectural character.

The third phase is a return in a sense to the origin of garden residential planning : the adaptation of the village to a normal suburb. The Hampstead garden suburb was one of the first and is still probably the best ; the site planning of these garden suburbs while keeping trees and other natural features has maintained a fondness for straight lines and formal shapes : they have considerably influenced the suburban planning of other countries.

America's contribution has been more varied

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than the English. In the first place there has been a reflection of Haussmannization in order to introduce Radials into the monotonous grid-iron of streets ; this naturally led to providing the amoeba-like grid with a heart or backbone. A plan like that of Chicago which was precisely the same in the business quarter as in a suburban area, calls for some marked Civic Centre, and this desire to show on plan and by monumental groups that the city is a higher organism became a passion. Civic centres have been planned and built for places like Chicago, Cleveland, St. Louis, St. Paul, etc. There has been a danger of rather over-emphasizing this phase, by a heterogeneous lumping together of big buildings without much spiritual or imaginative content ; but at any rate they have stood for a dignified symbol of the civic idea.

The second contribution is the Park System : that is to say, the working up of parks, playgrounds, open spaces, boulevards into an organized plan. It might almost be said that American city planning in this period began with the park system ; and some of her foremost city planners started as park designers. The relation of open space to the number of the population and the linking of them up together into a system, and connecting to the country by means of radial parkways, and finally the safeguarding of a reserve of wild country, are all features of the typical American system. The idea was also developed regionally as at Boston where the Metropolitan Park Commission

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extends over 38 neighbouring cities and townships and includes 15,000 acres of parks and 25 miles of parkways. This was one of the earliest examples of regional planning, on a compartmental basis. Height zoning, a little later in appearance, has also been a highly specialized American aspect of civic control.

A definite contribution of quite different nature was the production of the planning Report, issued usually by an unofficial body and splendidly illustrated. The first perhaps is that of Chicago and there have been others on Washington, Philadelphia, etc.¹ The more Sociological type of study and Housing have also been fully presented.

After the Big Four in planning contribution have been described, other countries may be more compendiously treated: this is not to suggest that they have not produced interesting and valuable planning during the period, but that the distinctive features are covered by those of the other countries. For example, *Belgium*, in spite of local tradition and an approximation to English standards of Density, has leant towards France in its planning; *Holland* is perhaps more independent. *Sweden* is remarkable for one of the most comprehensive Acts, that of 1874, which for the first time called for a definite scheme—a plan on paper—to be prepared and submitted, which was to satisfy

¹ The New York Report, most complete of all, belongs to the present era of planning.

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requirements of spaciousness, æsthetic, comforts, variety, neatness and hygiene; and to provide for light and air and for the greatest protection against fire. This Act tried the experiment of issuing a set of sixteen model town plans, both on the grid and geometrical radiating plan. The results were not very happy: many towns made pretentious dull gridiron plans without regard to local conditions or botched the standard plan on to an old town. Sitte helped to explode this crude system as he did in Germany; there has been a complete break away from standardization.

Italy passed a building Act in 1865, which enabled municipalities of over 10,000 to decide upon the treatment of all new roads and gave power to remodel central areas in conjunction with extension schemes. Milan is a good example of city extension on general radial lines: Florence of the remodelling of the centre which is nearly a restoration to its original Roman plan. Rome has confined its energies chiefly to the present century. Indeed at the moment Italy is perhaps the most energetic town-planning nation in Europe.

From the above brief notes may be gathered the wealth of material, experimental and achieved, that was available by the end of the nineteenth century, upon which to build up a system of modern practice.

PART II

THE PRACTICE OF TOWN PLANNING

CHAPTER I

THE OBJECTS AND SCOPE

BEFORE attempting to describe the processes of modern Planning in practice it is desirable to inquire with some precision what are its main objects and in what direction it is leading. It is not sufficient to shake up into a bottle the German Town extension plan, the Parisian boulevard, the English garden village, the American civic centre and park system, in order to produce a mechanical mixture which might be applied indiscriminately and beneficially to every town and village in this country, in the hope that thus it would be "town planned" according to the most up-to-date notions. There is no single nostrum that one can apply: nor can excellent maps of engineering or architectural draughtsmanship redeem a poverty of underlying ideas.

The sociologist—Patrick Geddes, for example—rightly insisted upon going to the root of things and postulated the requirements of the threefold—Place, Work, Folk, which may be classicized

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into Geography, Economics and Sociology, or given biological terms or stated as the biological triad Environment, Function and Organism. But we may be content with more immediate objectives; and we find these given in the English Town Planning Acts as "Proper Sanitary Conditions, Amenity and Convenience". It might not be fanciful to equate these with the Geddesian triad, if the order of the two last be changed. But comprehensive and exact as these are, one would prefer to reverse the order and simplify the language into "Beauty, Health and Convenience". There can be little doubt that beauty should stand first as it is the quality which must run through the whole in order to lift sanitation and engineering to the level of civic design and the dignity of city life. It is of course quite understandable that for strategic reasons the word beauty was hidden under the forbidding chill of "amenity" and placed second in order. If town planning is to be complete and to avoid lopsidedness a just equipoise must be attained between these three.

Sheer *Beauty*, or amenity without the requisite sanitary requirements or commercial convenience, is of singular emptiness in civic art, however possible or desirable it may be in painting or music. Pure design must be applied to a purpose, otherwise in town planning it becomes theatricality, with the drawback that the scenery is of no flimsy sort that can be shifted at the close of the act. Some of the Renaissance schemes and more of the unrealized projects

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have this fault of the unqualified aim at beauty. In Liverpool there is a good example of theatrical planning without the basis of sound commercial convenience ; the principal office street is closed by the town hall at one end, midway is an open space and at the far end was originally the old dock. When this was filled in, it was a fine architectural idea to balance the town hall with a gigantic custom house and dock office ; there was also symmetry of idea as well. But the new building was clean outside the office area and historic tenacity, by which this has been confined to King John's original town, has proved too strong : business centres grow vertically rather than horizontally. The further part of the street has turned out a failure both for business and shops, and both customs and dock board have abandoned the magnificent building which is out of touch with the shipping offices.

Nor will beauty without health do. In many of the old towns and villages which we most heartily admire picturesque beauty is to be found, but at the expense of health. Again, there is a gloomy grandeur about the grime of Manchester or the pall of smoke over lower Sheffield, which is comparable to the eruption of a volcano or the burst of a thunderclap, and is thoroughly typical of the strength of these cities. But though smoke may produce wonderful sunsets, we can safely say that beauty which is the cause of a higher death-rate is wrong and must be blown away by the planner at the cost of artistic obloquy or commercial grumbling.

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Some of the nineteenth-century Continental town planning was too much concerned with boulevards and public places and too little with the living conditions behind the fine façades. Conditions as to air space and light were below the English level ; and yet the dreariness of our externals has produced more drab urban conditions, and even tended to affect the interior of the houses. One of the chief advantages of the lower density in modern suburban planning has been the possibility of introducing beauty, which here stands for the preservation of trees and greenery, an improved type of domestic architecture, the avoiding of monotony and the planning the whole site to group houses together, so that besides being individually pleasing they may make attractive compositions. This aspect of beauty is so modest and so comparatively easy to be got that it should not terrify the most hardened philistine.

Somewhat more ambitious is the dignity required at the centre of the city. Here the commercial advantage of ostentation should be prepared to give way to public requirement. There should be no attempt to destroy local character, importing some cast-iron principle of theoretic design. The individuality of each town should be preserved so that its character may be strengthened rather than smoothed away. The limitation imposed by buildings strictly meeting their functional requirements—the restraint of commercial convenience—should guard them from theatricality while achieving

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beauty. The somewhat elementary oscillation between a dead horizontal and a vital vertical treatment, which modern architecture appears to be falling into, can be used to produce fine civic effects : the horizontal for approaches, the vertical for climaxes. These two effects should not be always found in the same building.

The attempt to plan for *Health* alone has proved disastrous : this was the fault of the by-law method practised in this country from 1875 to 1909 : each house was sanitary in itself ; drains, water supply and well-paved streets were provided ; but there was little regard to beauty on the one hand or general convenience on the other ; for as each owner looked to his own plot alone, street planning had no wider objective.

When this density of development also was extended over huge areas, even the amount of light and air became woefully insufficient. The precise relation of density to health has always been difficult to ascertain ; returns are given so variously, thus the proportion per gross acre containing many buildings not used for houses, to a large extent nullifies the value of a comparison with death rates. But if density is calculated per net residential area (including roads) it is found to bear a close relation to health. The maximum allowed by the model by-laws of 40 to 50 houses per acre or 200 to 250 persons, is in excess of what is frequently taken as suitable for the old part of a town, and should be compared with the accepted modern

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suburban standard of 12 houses or 50 to 60 persons per acre. The question has also been raised whether this lower density adopted for health purposes is going to make our towns cover too much land for convenience? It has been estimated that if overcrowding from the close-built part of Sheffield were eliminated the town would at once have to occupy 2,500 more acres—or a quarter as much as it does at present. The fear, however, that our towns under revised densities would extend inconveniently can be exaggerated when we remember that a circle of 25 miles radius from Charing Cross could include the whole population of England at the rate of 12 houses per acre. Quicker means of transport (which means unobstructed through routes) goes far to eliminate inconvenience. More serious is the artistic question; we have seen that the new garden suburb, even when well designed, if extended illimitably becomes monotonous—it is of too even and regular a texture and ignores grouping as a social unit: and the speculative builders' version of low density, interminable semi-detached villas, has already achieved weariness in no uncertain sense, lacking as these areas do both architectural grace and interest of lay-out, though they cannot be denied healthiness.

Beauty and health stand condemned if they prevent commercial *Convenience*; and it will be realized that convenience is the most clearly demonstrable of town planning advantages.

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The drawbacks of small ownership site-planning have been alluded to more than once. Of equal importance is the impact of housing estates upon through-traffic routes : without some control of side inlets and riparian building most of the money spent upon new by-passes will have been in vain. Again, it is idle to attempt improved housing conditions for purposes of health without studying convenience of access from home to work. Town planning, in a word, intends to make the city in every way a more convenient place to work in, aiming at designing and remodelling its business quarters, manufacturing districts, railway facilities and water front, so as to save money to the business man and allow the citizen to go to and from his work with the least loss of time and energy. Scarcely of less importance is the question of determining the type of property to be erected, particularly in connection with the location of factories. Public convenience will here sometimes come into conflict with immediate private advantage ; but the unnecessary destruction of the beauty of a neighbourhood by a factory (convenience here qualified by beauty), or the infliction of smoke and the contamination of the air of a housing district (convenience here qualified by health) may frequently be avoided at no private loss by taking a broad view of public Convenience. Perhaps the clearest case for health, amenity and convenience being considered together is to be made out from the lower Don Valley in Sheffield, where works and houses are found in juxta-

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position ; the works render the houses unhealthy and unattractive ; the houses occupy land that is required for industrial expansion.

The scope of planning, as has been indicated in the first chapter of Part I, cannot be relegated to an individual town and its environs (actually the first English Act was an appendix of a Housing Bill and practically confined its operations to suburban development). The existing town with its suburban extensions and the new town must inevitably lead to the surrounding Region ; and at any rate in a small island like ours it is not long before the linking up of Regions suggests some form of National Planning ; without this there will be reproduced a condition similar to that which would occur if two neighbouring estates or towns were to plan their road systems without reference to each other. There is also a danger in actual national planning not likely to occur in local planning : that its separate aspects may be considered in compartments, one aspect having little reference to or being even antagonistic to another. This form of compartmental national planning already exists in many directions : main Roads, Railways (partially) and Canals under the Ministry of Transport ; Electricity and Forestry under their respective commissioners ; Land Drainage, not yet completed with a National Water Supply Board nor with a full control of Sewage and Pollution. National Parks have been dealt with by an inter-departmental Government

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Report, but no machinery set up. Industry, not its operation but the provision of facilities on a national scale, is in the hands of the Board of Trade.

But there should be a Plan by means of which all these and many other features of national life which are scattered through different ministries, such as Housing and Building By-laws (Ministry of Health), Advertisement regulations (Home Office), etc., should be co-ordinated. This plan is something more positive than the harmonizing of individual local schemes when they come to be submitted or the occasional conference between groups of Commissioners or the meeting of representatives of Government departments as occurred on the National Parks Committee.

The most important National function would be the direction, in as authoritative a way as is humanly possible, of the Plan in regard to Population and Industry. It is fundamental to adequate planning to have in view whether a sudden revolutionary increase is to be anticipated (as in the Kent Coalfield), a gradually slowing down of national increase, a shifting of the population from one part to another, or a stationary condition. The character and scale of the Plan and the Public Services (e.g. water supply) which it will require depend greatly upon these population anticipations. A Plan usually presupposes growth; but it is equally needed for the economic revision of existing resources.

Planning may therefore be said to build

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up on a logical expanding scale: firstly, Estate planning and the details of house plotting, local road planning and industrial siting, which in this country has been left to individual initiative (acting under control); secondly, Local official planning of Town and Country, formed of convenient units of one or parts of several local authorities; thirdly, Regional planning comprising either whole counties or larger areas of geographic solidarity—as large, for example, as that of which Manchester was the centre and which comprised 1,000 square miles; and fourthly, National Planning for directing general policy.

Two Reports have been recently published which sum up the case for National Planning of Town and Country: the Barlow Report of the Royal Commission on the distribution of the Industrial population (1940); and the Scott Report of the Committee on Land Utilisation in Rural areas (1942). These are documents which every one who wishes to pursue the subject further should read.

CHAPTER II

A THEORY OF CIVIC PLANNING : REGIONAL STUDIES

To satisfy the threefold requirements described in the last chapter there must be some theory of planning in its technical accomplishment. Queen Elizabeth may have had a theory of planning when in 1580 she issued a proclamation, "charging and straightly commanding all manner of Persons of what Qualitie soever they be, to desist and forbear from any new buildings of any House or Tenement within three miles from any gate of the sayde City of London"; she did not presumably mean to limit the population of the kingdom, but she did wish to stop the continued and aimless growth of London. But nothing positive was offered as an alternative, and London continued to grow and the plague which Elizabeth feared duly took place. To attempt to bottle up growth by proclamation is not enough.

Nor is theory in detail sufficient, as has been seen in the nineteenth-century health-unit plan. A somewhat wider, but still too narrow approach has been made in recent times through establishing general standards of density over wide areas. These have already been alluded to: 50 or 60 persons is the normal accepted maximum for

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suburban areas ; this is just about the same as the general over-all density of a city like Sheffield. Individual areas in the centre of Sheffield run to 400 and in New York the normal old-fashioned "Dumbell" tenement produced about 750. What is the maximum to aim at ? One hundred per acre in the centre and 50 in the suburb has been taken in Sheffield, and this is about the same as a new type of tenement quarter in New York. But then there are other cities like Liverpool that attempt to re-house on the same spot as nearly as may be the original number.¹ The whole question is extremely complex. Four alternative silhouettes of cities may be compared to give a general idea of different conceptions as to density, both of dwellings and business, in order to show the resulting differences of civic treatment. The average English town is taken as the norm : it covers one-half of the horizontal space of the diagram with a fairly even density of building, the by-law outer housing ring being very little less dense than the central parts : villa satellites straggle out into the country which is thus spoilt for really rural use. Contrast with this a similar-sized Garden City in which nothing *above* 50 persons per housing acre is allowed, even at the centre ; the extent of the town covers the whole horizontal space, and trees, gardens and natural features approach up to the civic centre ; a strict limitation of size minimizes this loose texture. The older

¹ As many as 99.5 per cent. has been re-housed on one area.

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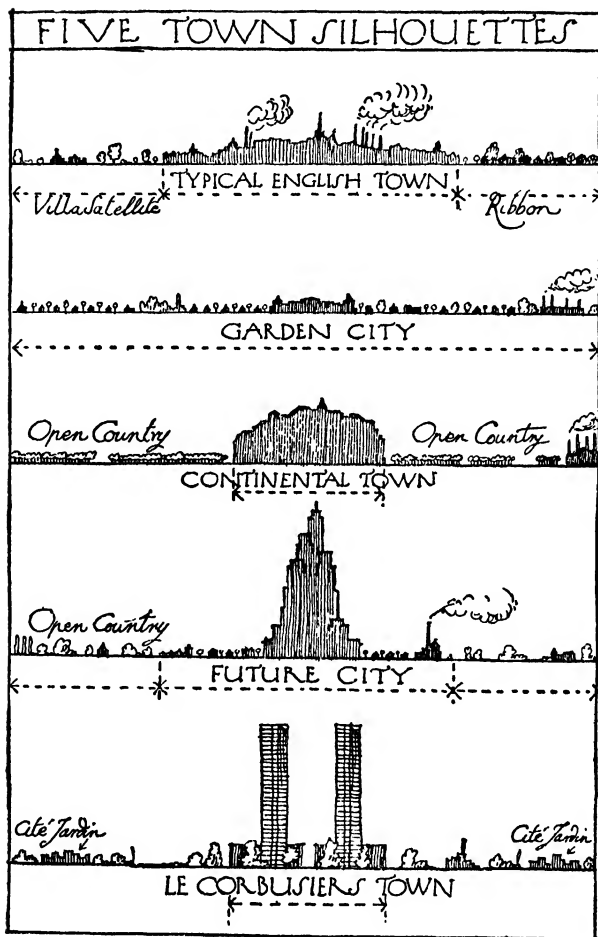


FIG. 20.

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type of Continental town is perhaps twice the density of the average English one : it maintains the fortification idea of an abrupt termination of full urban height on to the open country. The extent covered is about half that of the English town, and a high over-all density is maintained. The fourth silhouette suggests a pyramidal tendency in Modern cities: congestion at the centre forces people *in* and *up*, and the large amount of space given up in the normal English town tends to be compressed into a few tall buildings closely surrounded by a large stores and then enclosed in a ring of flats for those people who have no notion of suburban gardening. Beyond this compact centre the outer residential ring can drop to the low density of the garden suburb, now no longer so far off. Something of this sort is actually happening to-day in towns where the residential zone is gradually returning towards the centre. An interesting contrast to this latter is put forward by that bold pioneer, M. Le Corbusier. His City of To-morrow (planned for 3,000,000 people) is as opposed to the New York tendency of jostling skyscrapers at the centre, as it is to the Garden City low over-all density. He proposes to maintain or slightly to increase the over-all Continental density but to reduce the ground covered by building to 15 per cent of the total area and to confine all business in a few isolated skyscrapers $\frac{1}{4}$ -mile apart and 700 feet high ; the intervening ground is open gardens and woodland of extremely naturalistic type, through which

A THEORY OF CIVIC PLANNING

run great unimpeded traffic arteries. All housing is in two types of tenement, which being at least 110 feet high also leave a great deal of open space. (Both types are planned on a system of hanging gardens and set-backs.) This is the extreme use of height in order to free ground space, rather than greatly to increase

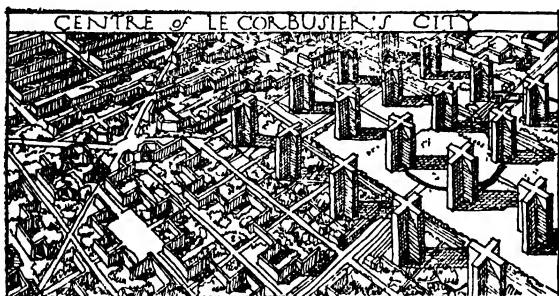


FIG. 21.

density. The four basic principles are given as follows :

1. We must de-congest the centres of our cities.
2. We must augment their density.¹
3. We must increase the means for getting about.
4. We must increase parks and open spaces.

M. Le Corbusier is however sufficiently human to allow "cité-jardins" or garden villages, both for those who wish to work in the factory zones (kept outside the city) and those who work in

¹ There is a little uncertainty as to what extent this density refers, to the whole or parts of the city.

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the skyscrapers but prefer to bring up their families in "garden" houses. There is an essential protective zone of woods and fields—a fresh-air reserve—between the city proper and these suburbs. Le Corbusier has therefore clearly entered the ranks of the satellite growth advocates. This brings him into line with Ebenezer Howard's garden-city method of extension.

Mr. Noulan Cauchon of Canada, in antagonism to all lofty building, has revived the hexagonal street plotting which, rather than the gridiron, is the real insect cellular plan: he has ingeniously endowed it with mile-square traffic hexagons superimposed upon the honeycombs of building plots, in order to erect it into a major system of civic planning. The *raison d'être* of the hexagon, he asserts, is the three-way wide-angled road intersection, which cuts out the time-loss in right-angled crossings. But with the exception of the $\frac{1}{2}$ -mile sides of his major hexagons, all other streets are a continual zigzag along smaller blocks. Rudolph Müller, of Vienna, by adopting a kind of Arab mosaic pattern, provided straight streets in three directions.

It might be said that there are four general methods of External growth: the Concentric Spread, the Ribbon, the Satellite and the Scatter. The gradual *spread*, until quite recently (owing to the centrifugal effect of rapid transit along main roads), has been the usual method unless some natural obstacle, such as a river valley subject to flood, intervenes to break its con-

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tinuity. There is always a strong inclination for the present city to keep its offspring around its skirts as long as possible, if only because by that means it retains the increasing rateable value. But there is a growing conviction that mere proximity does not make for quickness of access as, even in underground communications, there is a necessity for frequent stops; in London to-day there are many places outside the continuous growth which by means of an express service are within a shorter time-distance of the centre. Still, Spread can be properly planned, emphasis given to main through routes (of various types), adequate open space provided on a systematic basis, segregation of industries, etc.; much of the Continental extension planning shows this method at its best; in this country we have not properly faced the solution of unimpeded through-traffic routes (except in the London tubes). Nevertheless Spread without limit is no satisfactory solution of growth.

The *ribbon* development represents an extremely instructive natural evolution. The railways deposited suburban passengers at fixed and infrequent spots and so encouraged spot growth; but the slowness of steam engines getting under way and the notorious neglect by railways of stopping traffic prevented much happening. Then came the motor-bus, covering the ground much quicker and stopping almost wherever wanted; the deposit of new houses along the roads was inevitable. Ribbon building is of

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course the natural formation of all communities ; but whereas in the past they have usually been in short lengths knotted or bowed together for purposes of safety or proximity to wells, the

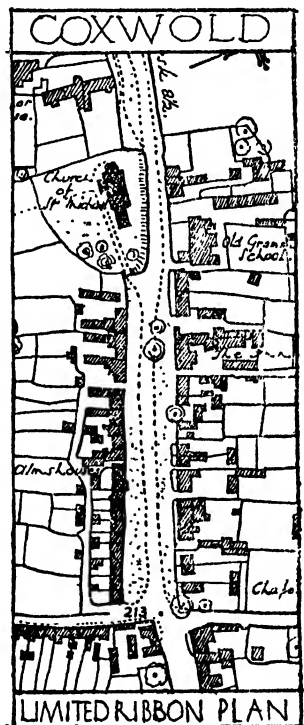


FIG. 22.

ribbons are now untied and rolled in interminable lengths. The æsthetic fault of the ribbon is simple : it is an urban formation purely, but it is thrust into the comparative naturalness of the

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country. It is like a cancer—a growth of apparently healthy cells but proceeding without check or relation to the whole body. The country is indeed humanized, but should not proceed to the length of being urbanized : the concentration of the same number of houses into groups, while it heightens the human and social side, reduces the urbanizing impact upon the country at large. The practical disadvantages have frequently been stated : houses facing main and noisy traffic routes, and thus dangerous for children ; the impeding of through traffic ; the greater depth and cost of drainage with a continuous “fall” as compared with a series of short lengths ; the general unsociability of the arrangement and difficulty of convenient shopping centres (except through access to the main centres by bus) ; the distance of children from school (with the likelihood of the education authority having to convey them by bus or provide free bicycles with the consequent danger from cycling on the main road). But compared with these real and permanent disadvantages there are two immediate advantages : in the first place the method follows the line of least resistance—there is no thought required in the placing of the house ; it is on the bus route. In the second place there is the singular anomaly in English law that if you would make a new road and build houses upon it, you are mulcted on behalf of the public by having to make up a road ; if you make it up to a certain specification, the public will reward you by annexing it for its use and paying for its

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upkeep; and you may be sure that you are made to spend as much upon the initial road as possible in order to minimize the amount of upkeep. If, however, you build upon an existing road, whether it be a main road or a country lane, you get off free, however much the public may have to pay for remodelling the street to make it suitable for a built-up area (see p. 176). The ribbon illustrates the danger of planning from detail upwards: modern standards of density (12 houses per acre) used to break up the overcrowded by-law suburb have been abused by the ribbon, which produces too loose and scattered a community. It is a fault in the other extreme. Finally, it may be mentioned that the ribbon type of growth had already been methodized into a system by the Spanish planner, Don Arturo Soria y Mata in 1882, under the name *Ciudad Lineal*: the continuous building along the road—what Le Corbusier calls the “Corridor Street”—is eliminated by separate road and rail speed tracks down the centre; the strip is widened to allow right-angled side roads; and the strips join up existing or new centres of population and enclose triangles of country which are thus made into intensively cultivated agricultural reservations. Even if this system escapes some of the disadvantages, the æsthetic—the blanketing out of the country—remains: and it is impossible to conceive the *Lineal City* becoming a satisfactory social community.

There seems to be general agreement that after towns have reached a certain size some form of

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satellite devolution is desirable ; the maximum number postulated for the central mass varies considerably. Ebenezer Howard put 30,000 and Le Corbusier 3,000,000 ; others have sought with considerable success to prove that beyond 100,000, inconveniences arise and public services instead of cheapening, become dearer. But economies and even conveniences are not the only desiderata in cities : the question may also be asked what is the minimum size for such things as a large art gallery, museum, theatre, concerts, library and more popular activities which require to be held on a large scale ? There is also the feeling of prestige : a town or perhaps more precisely a town council will grasp at increased population, increased rateable value, even if it means increased rates all round. There is a competition for mere size apart from efficiency or paltry economy ; the Lord Mayor of Smokeover wants to be the chief citizen of the largest town in Muddleshire.

There is under present powers the difficulty of the intervening zone in which a building value, between the great city and the satellites, is created, unless there are special topographical circumstances. Thus, in the Regional Planning Scheme prepared for Doncaster and District in 1925, this satellite form in a growing area appeared both possible and natural: there was first the town of Doncaster prevented from expansion except in two small directions by low-lying land, the racecourse and other public open spaces; in a rough circle a few miles out

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were situated the new coal shafts which, being very deep, were spaced more than 3 miles apart ; each pit, ten or more, would have its local village,

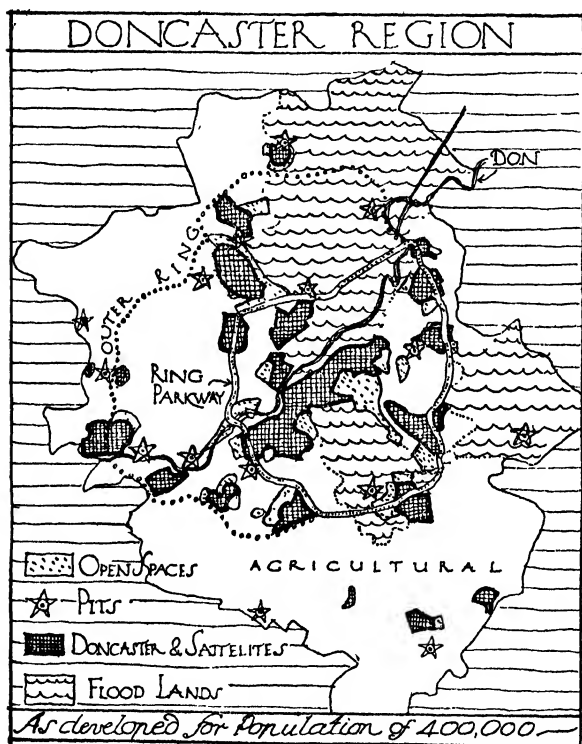


FIG. 23.

properly placed, each a complete community with its work, shops and amusements, a focus of local life, the average size being about 15,000 people. These were not to be in any sense over-

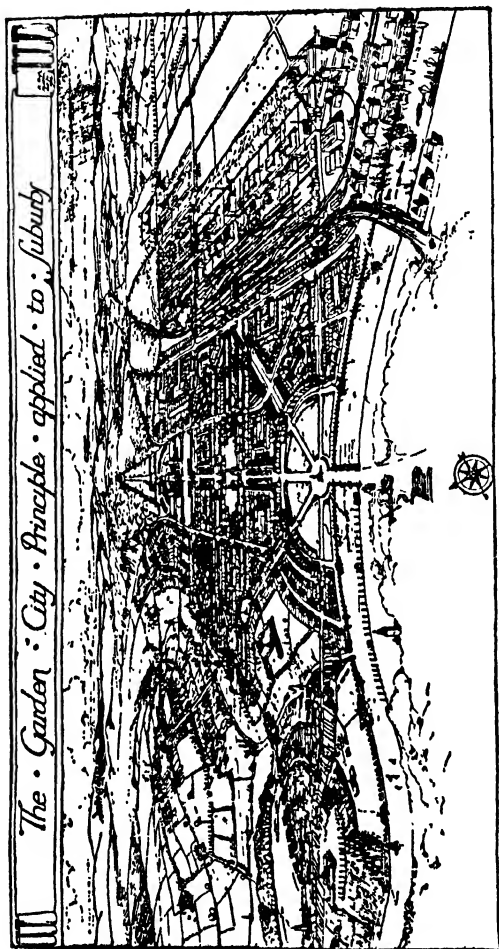


FIG. 24.

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flows of Doncaster; they added something new to the old racing agricultural town. Central to these, yet in no way dominating their individual existence, was to be a city, neither swollen nor tentacular, but in the widest meaning of the word Metropolitan. For major pleasures, higher studies, contact with great art, dramatic, musical, visual, and for important business affairs, the inhabitants would have within easy reach this enlarged and transfigured Doncaster. Communication would be direct through the open low-lying land from the satellites to the centre, and between each other by a more easy-going wide tree-planted parkway. This whole community would be about the same size as Leeds, and it was contended that it would not be any more unwieldy as regards intercourse between its component parts. The low-lying land and the separation of the chief work-places (the pits) made this scheme possible. On the low-lying land some industry would be allowed; the higher farm land would be inviolable.

Sir Raymond Unwin's illuminating sketch (Fig. 24), shows a somewhat smaller composite community, in which the satellites are more in the nature of suburban fragments of the centre; there will always be found this variation between the degree of independence in the satellite. Thus it might be said that Letchworth is more self-contained in relation to London than Welwyn, the second garden city.

There can be no doubt that a logical scheme

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of civic planning upon a theoretic background can only be attempted on a Regional scale, when for the purpose of arriving at the best result the boundaries of authorities are banished from the mind. This is particularly true of England where there is a sharp division between the County Councils and the County Boroughs. This sinking of boundary preoccupation has been done in some 50 advisory regional plans which have been prepared in this country. It remains for National Planning to make this regional basis of planning permanent.

Two magistral foreign regional schemes may be mentioned: that prepared for the Ruhr coalfield, a self-governing corporate body, which includes 1,500 square miles, 268 local authorities, and 4,000,000 inhabitants; and the even greater plan of New York covering 5,000 square miles and 10,000,000 inhabitants. The Greater London plan is in course of preparation: its area is 2,500 square miles, and population 9,000,000. It remains to be seen whether these regional organizations will merely ameliorate normal growth on a tactical scale, or whether they can induce some strategic plan of campaign. Certainly between Ebenezer Howard's and Le Corbusier's conceptions there is room for considerable variety of idea, though perhaps the gap between the two is not so wide as one might suppose.

CHAPTER III

THE SURVEY

No adequate planning scheme can be prepared for a place unless there has been some sort of preliminary Survey, using the word in its Johnsonian rather than its trigonometrical sense:—

Let Observation, with extensive view,
Survey mankind from China to Peru.

But here also the word is intended to mean the *extensive* view applied *intensively* to a definite place, whether local or regional. Geddes' Edinburgh survey led the way in this country; but the French Regional conception of Geography in this wide and social sense probably inspired him. The survey first emerged into public view at the great Town Planning Exhibition of 1910 at Burlington House, and it is safe to say that the modern practice of planning in this country would have been a more elementary thing if it had not been for the Edinburgh room and all that this implied. It was a torture chamber to those simple souls that had been ravished by the glorious perspectives or heartened by the healthy villages shown in the other and ampler galleries. Within this den sat Geddes, a most unsettling person, talking, talking, talking . . .

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about anything and everything. The visitors could criticize his show—the merest hotch-potch—picture postcards—newspaper cuttings—crude old woodcuts—strange diagrams—archæological reconstructions; these things, they said, were unworthy of the Royal Academy—many of them not even framed—shocking want of respect; but if they chanced within the range of Geddes' talk, henceforth nothing could medicine them to that sweet sleep which yesterday they owed. There was something more in town planning than met the eye!

The plain practical man might say that he knew his town from pillar to post, he knew its history and he knew its present extent, every inch of it; its survey could be contained in his head, where the brain can review and compare without the cumbrous machinery of maps. But actually he knows no more about it than his tongue does about the state of his teeth; in one instance a large area near the town hall of a big city was well known to contain factories of what is called a "light" kind, frequently combined with wholesale shops: in amongst them were some old houses which required demolishing. A simple mapping of the industries of that area astonished those who thought they knew it thoroughly; no one realized how completely interpenetrated by industry it was and the medical officer at once decided that no new houses should be built there. If the actual state of a spot that one passes through every day can escape exact appreciation, how much more

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does a region containing the citizens of many towns, and the peasants and villagers of its countryside, require a graphic presentation before its requirements can be understood? Perhaps the one aspect which has generally been accepted as requiring regional study is that of traffic: it is manifestly absurd to cease our scrutiny of the stream of motors the moment they cross the municipal boundary line. This fluid dynamic quality of traffic has been most useful in directing our eyes along its course, quite irrespective of the ownership, administrative or otherwise, of the territory through which it flows. The same interpenetration of town and country is in existence though less evident in every other aspect.

In England we have specialized in Regional Surveys, rather than Civic, there being invariably a first part of the Regional Planning Reports issued, devoted exclusively to these preliminary studies, which should ensure that the regional plans are really based upon a firm foundation. But so far there have been few intensive studies of single cities: Booth's *London* dealt with one side of it only; Marr's *Manchester* was a mere sketch: Geddes' *Edinburgh* has not yet been reduced to workable dimensions. Perhaps the Civics Institute of Ireland has produced the most monumental survey on Dublin; and for Sheffield a thorough survey has been published by the Municipality.

Two particular advantages of a fully docu-

THE SURVEY

mented and vividly illustrated Survey may be mentioned. In the last chapter the value of ideas was stressed, some theoretic basis or background behind a planning scheme. The value of the survey is to stress the local requirements—the appropriate treatment socially, conveniently and artistically. The preconceived ideal, based on conditions studied elsewhere—perhaps in a foreign country—or evolved from a study of fundamental needs—is thus modified for and modelled to suit a special case. Here is where the knowledge of the history of a place is of first importance. If one might criticize a living and brilliant practitioner, M. Le Corbusier's theoretic basis of the modern city takes on a very different complexion when, with all its squareness unmollified, it is dropped on to about 1,000 acres of Central Paris, which are to be wiped out at one stroke. A few old features like the Place Vendôme, the Madeleine, the Opera and the Palais Royale are left lying in the midst discordantly and disconsolately, “like lumps of marl on a barren moor, encumbering what it is not in their power to fertilize”. If the whole of Paris might be scrapped and something entirely new substituted there would be less objection—the survey then would limit itself to physical characteristics of the site—there would be no background of human endeavour which, however antiquated, cannot be ignored. As a contrast, the rebuilding of large areas in South London, by the L.C.C. and Professor Adshead and Mr. S. C. Ramsey, shows modern

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ideas brought into exact harmony with traditional needs and feeling.

The other advantage of the Survey is the attention it draws to the inter-relation of activities. It is inevitable that individuals see things from the angle that interests them : one is for factories ; another is a housing enthusiast ; a third for traffic ; a fourth for monumental central improvements or the retention of old-world character ; a fifth for playing fields. The survey corrects over-specialization : it ensures that if in place of blind evolution we are to substitute controlled planning, it will at least be based upon scientific study. For example, in the past the manufacturer has been the judge where to place his works ; he has a shrewd notion where they should go and if he judges selfishly and without much compunction spoils a beautiful neighbourhood, he at any rate adds to the prosperity of the town by choosing a site on which his works may be successful. Or again in the preliminary survey for East Kent, it was found that the existing economic assets in the sea-coast towns were greater than the calculated assets of the proposed coalfield : it would therefore be uneconomic to encourage the latter at the expense of the former. There is, therefore, a danger that if in place of this selfish natural selection, we substitute unconsidered zeal, certain districts may be scheduled to receive types of development, whether of houses, factories or what not, for which they are not really suited. Scientific

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study must take the place of the speculative builder's or manufacturer's self-centred instinct.

A mere list of headings must suffice to show the scope of a Survey, regional or civic. To comment on each heading would enlarge this chapter to a book. It will be readily understood that every survey will not concentrate equally upon every aspect; knowledge of requirements will indicate the direction in which intensive investigation will proceed.

I. PHYSICAL FEATURES.

- (a) *Geology : showing the present arrangement of the underlying rocks, and also, where necessary, describing the method of formation where this explains topography.*
- (b) *Contours : showing both actual heights and variations of surface.*
- (c) *Rivers, floodlands, coasts and tides.*
- (d) *Rainfall and wind : charts worked out for the district.*

II. HISTORY, ARCHÆOLOGY AND ARCHITECTURE.

- (a) *Studies of growth from old maps.*
- (b) *Archæological remains, sites, etc.*
- (c) *Ancient buildings, and of architectural merit.*
- (d) *Architectural character : local usages and materials.*

III. COMMUNICATIONS.

- (a) *Roads, including history of roads, traffic, details of widths, tree planting, etc.*
- (b) *Railways.*
- (c) *Waterways, rivers and canals.*
- (d) *Air transport : the sites of aerodromes.*
- (e) *General accessibility by various means, including time as well as distance.*

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IV. INDUSTRIAL SURVEY.

- (a) *Local industries : a classification ; their position, number of hands employed, etc.*
- (b) *Mineral workings, including economic geology.*
- (c) *Commerce : including docks, business areas, shops, etc.*
- (d) *Persons employed in various occupations.*

V. POPULATION.

- (a) *Actual amount, with increase and decrease.*
- (b) *Occupations and diurnal movement.*
- (c) *Density.*

VI. HEALTH CONDITIONS.

Birth rates, death rates and disease diagrams.

VII. HOUSING.

- (a) *Historic studies.*
- (b) *Types of building.*
- (c) *Insanitary areas : types and conditions of buildings.*
- (d) *Suburban development.*
- (e) *Rents.*

VIII. OPEN SPACES.

- (a) *Public, related to population and classified according to use.*
- (b) *Private : degree of admission of public.*
- (c) *Commons and other special types of area.*
- (d) *Footpaths and rights of access.*

IX. LAND CULTIVATION.

- (a) *Agriculture.*
- (b) *Afforestation.*
- (c) *Allotments and small-holdings.*

X. LANDSCAPE SURVEY.

- (a) *Types of country.*
- (b) *Soils and vegetation.*
- (c) *Country towns and villages as landscape features.*
- (d) *Disfigurement.*

THE SURVEY

XI. ADMINISTRATION AND FINANCE.

- (a) *Local authority areas including parishes.*
- (b) *Rateable values.*
- (c) *Land values.*

XII. PUBLIC SERVICES.

- (a) *Water supply.*
- (b) *Drainage.*
- (c) *Electricity.*
- (d) *Gas.*

It does not necessarily follow that each of these headings will have a separate map, though some of them may require several. There is a form of map called a "Surface Utilization" diagram, in which the use to which every plot of land is put is shown upon the same plan—a sort of omnibus user of the ground.¹ Generally speaking, however, separate diagrams, drawn to similar scales and capable of being superimposed or compared will give the clearest result.

It is possible to go on elaborating the Survey ; for example, nothing has been said of "special buildings" such as schools, post offices, churches, licensed premises, etc. What must be borne in mind is the use to which the Survey is to be put and a limit fixed as to its extent. When preparatory to making a plan, a survey may have three slightly differing uses : first, to give the technician the data upon which to work ;

¹ The Ordnance Dept. have published such a Map for the open country, the investigation for which has been done under Dr. Dudley Stamp's direction by the Land Utilization Survey (London School of Economics and the Geographical Association), the field work largely due to the geographical departments of schools.

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secondly, to provide corroborative evidence for a committee or a ministry; thirdly, as propaganda with the public. And it will be realized that the treatment of diagrams varies according as one or other of these uses preponderates.

But there are many ways in which unofficial surveys can supplement these official studies. The Civics Institute has shown how valuable and interesting such work can be, probing for example into the remote past—geological, human and vegetable; thus a reconstruction may be made of the primitive vegetation of the countryside or the habitations and tracks of the Bronze Age.

The recent Survey published by the Bournville Trust¹ deals with the more immediately important social conditions of Birmingham: the structure of its population, the journeys from home to work, the density of population of the central, middle and outer rings, etc., etc.

Village surveys, going into detail investigation of land tenure, local history and persons are all part of this same study of history and environment, which is the Greater Geography.

¹ *When We Build Again.*

CHAPTER IV

THE PLAN

Zoning—Communications—Open Spaces.

THE Survey naturally leads to the Plan : indeed in many cases there is no precise break, the study of the present inevitably fore-shadowing the future, if the same organization is carrying on. The larger number of English surveys, of which South-West Lancashire is typical, lead without break in the same volume to planning proposals. In other cases the plan has taken the form of a competition, as those held before the 1914 War for Berlin, and since for Paris. The Dublin competition, promoted by the Marquess of Aberdeen, was held before the Survey, and was accordingly primarily for the purpose of eliciting ideas.

All these may be called examples of Advisory Development Plans, whether regional or local; they may be and often are carried out into considerable detail, in published volumes with vivid drawings and many maps and diagrams, the object being to make the future growth as comprehensible as possible. Amsterdam and Moscow have published magnificent studies of this type. These Reports and Plans are sometimes prepared by unofficial bodies such as the

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Russell Sage Foundation for New York, or committees of local authorities acting in an advisory capacity. It is impossible to overestimate the value of these prophetic glimpses into the future, which not only have the practical use of suggesting future policy in the provision of public services such as electricity and water supply (in addition to actual town and country planning schemes) but give some play to the public imagination, without which public support becomes lukewarm. But they also have a danger: the timid, unimaginative and above all the so-called practical man is inclined to suppose that large scale plans mean immediate large scale constructional works. Planning of course means the preparation for the works when they are required. In America popular editions of Reports in order to counteract such erroneous views and to explain the plan have been issued, e.g.: *Mastering a Metropolis*, which summarizes the twenty volumes of the New York plan.

This preparation, too, must be translated from a vision, the advisory plan, into a working affair, or a legal Town or Country Planning Scheme. This distinction between an advisory plan and a legal planning scheme must be clearly grasped. To make an analogy with architecture: the advisory plan is comparable to the perspective view, sketch plans, and general description made by the architect to show his client what the building will look like; the legal planning scheme represents the set of working drawings and

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quantities from which the house is actually built. But in a planning scheme, there is the added difficulty that you are preparing ahead for a gradual growth—not for an immediate building—and therefore the plan must be organic, instead of cut and dried, and flexible instead of rigid. A planning scheme will inevitably have lost its imaginative look—it must be tricked out in strictly legal colourings ; it can contain no exact details ; but if the idea and the inspiration are there they will infuse the growth with their warmth. Therefore the making of the legal scheme on *plan* is only the first part ; the carrying of it out by *planning* is the second part of the work. The plan and its execution both require equal skill and the latter continued application.

Modern *planning*, in its most comprehensive meaning, therefore goes through three technical stages : the Preliminary Survey ; the Advisory Development Plan ; the Legal Planning Scheme. The next stage is the *building* of the city or the *development* of the region according to these legal requirements and advisory suggestions.

The four major instruments in the technical work of preparing a planning scheme are Zones, Communications, Open Spaces and Community grouping.

Zoning

Zoning is a clumsy word, as used in planning ; for it does not mean necessarily a belt : it merely means the dedication of a certain area to a particular use. And in the official town plan-

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ning of this country it has been given a wholly arbitrary limitation : for land that is used for agriculture or is an open space used for recreation or a common, has been taken to be specially "reserved" for that purpose, whereas zoning implies a more intensive use for building, manufacture, mining, etc. Thus land is spoken of as "zoned" for factories, but "reserved" for agriculture, although farming is the basic form of industry. The differentiation is due to the sudden jump in value from agricultural land to building land ; under the Town Planning Act this has been accompanied by the important distinction that if an owner's land is reserved for agriculture and open space he may claim a compensation if he is thereby prevented from realizing a building value ; but if it is zoned for building he has no claim for compensation if he disagrees with the type or amount of building which the Minister of Health considers reasonable.

The type and the volume of building or development which land may carry is the essence of zoning. It is usually subdivided into Character, Density and Height Zoning: *character* means the division into residential, business and industrial use with many subdivisions and compromises between these three major characters ; *density* means the amount of land surface the buildings may occupy, and this may be measured in a general way per acre or more detailedly according to the proportion of plot which may be built upon ; *height* is either absolute or in relation to the width of the street. It is possible,

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as in the case of New York, to have three separate plans for these three, but height zoning has so eclipsed the other two in urgency that the word zoning is frequently taken in America to mean the limitation of heights according to their special method of "set-backs" at certain storeys which has produced the particular shape of recent lofty buildings in New York. Many American cities

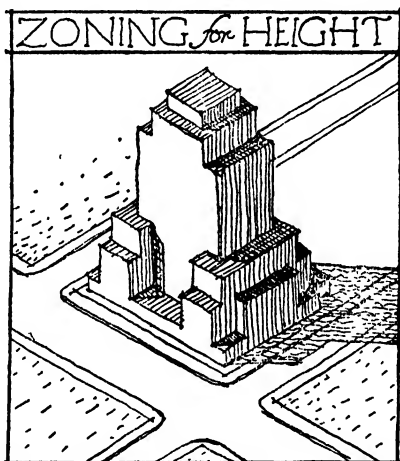


FIG. 25.

adopted zoning ordinances, chiefly for the existing town, apart from general planning schemes; where these ordinances have been in operation it has been found that land uses are stabilized and that their operation has the approval of the business community, as well as that of the planner.

In England it is usual to combine character and density zoning on a single plan, density referring chiefly to houses; and to deal with

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heights by means of a clause, limiting it in relation to the width of street. Density is also somewhat redundantly dealt with by a clause limiting the amount of the plot to be built on according to the character and height of the building. The main difficulty in operating character zoning is to secure definiteness and at the same time allow flexibility. You do not want to say, over a large area of somewhat uncertain future use, "only houses here" when perhaps a shop or a harmless factory might be required in some suitable position later. The method which has been evolved is an ingenious one and only requires continued town planning experience in its working to make it a success: in a given zone its predominant use is determined (e.g. residential), buildings for that purpose may be allowed without consent (though subject to density and height restrictions, etc.); then there is a list of buildings for which consent is required (e.g. shops, industrial); finally, there are certain buildings totally prohibited (e.g. noxious industries). It is possible under this threefold classification to provide for any number of different types of zone: the difficulty of defining the permissive buildings may be got over by the following formula which is generally used:—

Buildings for which the Zone is primarily intended.	Buildings which may only be erected with the Council's consent.	Buildings not to be erected.
Dwelling houses.	Buildings other than dwelling houses and buildings for noxious industry.	Buildings for noxious industry.

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It is the central column that provides the necessary flexibility and that entails planning *in ambulando*.¹

Communications

Whereas advisory plans will deal with railways and waterways, as these are usually statutory undertakings it is customary in legal planning to confine communications to roads and the sites of aerodromes. But if these two former aspects of transportation have to be dealt with nationally, the road system must be closely co-ordinated with them, through the Ministry of Transport. The importance of the design of the street net which forms the obvious ground-plan of the town has been stressed in the historical chapter. In a perfectly adjusted plan the street net should reflect the zoning activities of the place. There is something fundamentally wrong about an unbroken gridiron of mile-square major plots equally subdivided forming the plan of a group of suburban houses, the business centre of a great city and a manufacturing district: this was the dead effect of the street plan of Chicago before the modern effort to vivify it. On the other hand, Middlesbrough was shown as a place in which natural zoning and road plan fit each other (though otherwise as imperfect a city as unregenerate Chicago was).

The chief features of road design for regional or local purposes consists in traffic classification,

¹ New York got into great difficulties through trying to define certain actual industries; the lists were continually being revised.

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general direction and treatment according to the class to which the road belongs. It sounds an elementary proposition that roads should be classified according to the traffic which they are expected to carry; but it is a comparatively new idea that a road which gives access to twenty houses and leads nowhere in particular does not require to be as wide or as heavily paved as a national trunk road that runs from London to York.¹ The modern practice is to divide roads into three main types, whether in open country or the centre of the town: firstly, the arterial or trunk road, which is fenced off from all riparian access and is connected to other roads at rare intervals by roundabouts and flyovers; secondly, the sub-arterial or regional roads, on which no buildings open direct and to which as few side roads enter as possible, but which is directly connected with the road and street system; thirdly, the approach or local roads, whose function is to give access to buildings, whether houses, shops, offices or factories, and which carries no through traffic. Generally speaking the plan is content with designing the first- and second-class roads and a few of the more important local roads which might be called connecting links, leaving the detailed street plotting to be filled in as building proceeds.

Two special types of modern roads may be mentioned. The By-pass, or when linked up together the external Ring road, has been fre-

¹ See the By-law road, Fig. 1C.

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quently made to avoid the destructive widening of an old village or to escape the congestion of an old town. It has suffered from being imperfectly protected from riparian building, which, if allowed at all, should always be given a separate service road as approach to the houses. The other type is the Traffic Parkway in which the road runs through a belt of open space of varying width, the parallel service roads, if any, being distinct and having their houses on both sides. The Westchester Parkway, N.Y.,

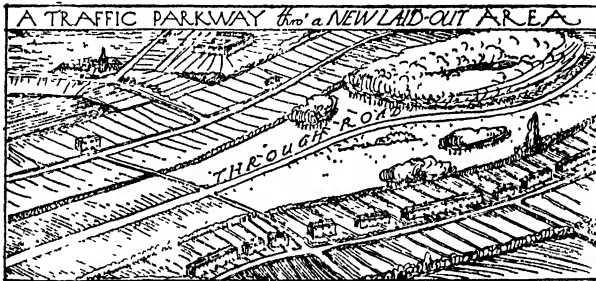


FIG. 26.

is the best-known American example; the Manchester Corporation is constructing one through their Wythenshawe estate, designed by Mr. Barry Parker. With this width of margin it is possible to carry cross-roads over by bridges and so, with the added absence of ribbon building, to make these roads suitable for rapid traffic and at the same time features of great beauty. The Road Traffic Act of 1909 (as well as the Town and Country Planning Act) enables these parkways to be constructed at the small expense

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of the acquisition of a little more land at agricultural prices when the purchase or arrangements for the road are being made.

At present Air communication is an extension of street planning: for the aerodrome, once located, depends upon connection by road; it should therefore be on the outer ring and on one of the main radials. The future of helicopter landing may introduce air planning for the centre of towns.

Open Spaces

The reservation of land for Open Spaces is the means by which the continuity of building zones, whether of large extent as in towns or small area as in villages, is broken. In the town the open spaces form the Park System which does or should interpenetrate the urban mass; in the country the open space is farm land in which the village or small town is embedded; we think of the town as a mass of red cut up into blocks by veins and patches of green, of the country as a mass of green on which are small dots of red. Looked at from the *urban point of view* the function of the green in the town is positive, in the country it is negative; the positive is in active use for public purposes, the negative pursues its own agricultural way, undisturbed, but of enormous importance indirectly to its urban counterpart.

The positive open spaces of the town must therefore be of a permanent nature and the greater part wholly accessible to the public. They must be systematically provided, not as

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has been customary in England by buying up an old house and garden when it happened to come into the market, and making it a park and the house a museum. Different views have been held as to the form of the park system: Vienna has gone almost wholly for concentric belts; many American cities have added radial

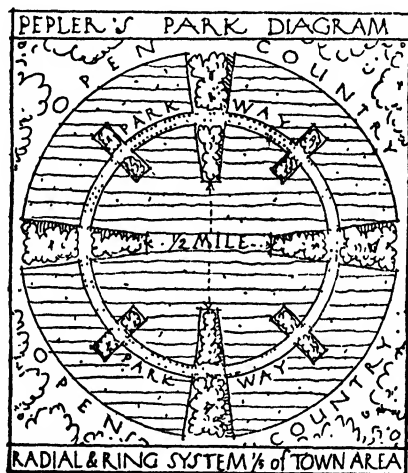


FIG. 27.

park wedges, gradually widening towards the country. The diagram shows a combined scheme for the town surrounded by an inviolable Green Belt of open country. Certain standards have been adopted for the amount of open space of different types. Five acres per thousand of the population has been widely accepted on the Continent and in this country, and the sub-division of the acreage into three-fifths for

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games and two-fifths for general park space. Of the 3 acres for games, it has been stipulated that for children under 14 there should be $\frac{1}{2}$ -acre which should be so distributed that no child should have to walk more than $\frac{1}{4}$ -mile to reach a play space. The remaining $2\frac{1}{2}$ acres could be more irregularly distributed for large sports grounds. The National Playing Fields Association maintain that these 5 acres should be wholly public and an additional 3 acres per 1,000 is wanted for private open spaces. There is naturally a tendency for the games enthusiasts to diminish the normal park area if the whole is strictly limited; a complete system, however, should provide for all ages and moods of the population and should progress from the small children's playground and town garden, through the elaborately landscaped parks and open playing fields with their boulevard and footpath connections to the Green Belt, open country and nature reserves. The figure of 5 acres is not meant to cover more than the immediate needs of the town within its planned area.

The planning for future growth on this population basis presents difficulties which similar advance-planning of zones and roads does not: in the latter the plan merely indicates where and how these things are to be done when the time comes. But with open spaces it is necessary at some time or other to buy; and it is evident that the longer one waits the more expensive the land will have grown, unless, as proposed by the

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Uthwatt Committee, some scheme for State acquisition of building values on undeveloped land is adopted. Anyhow land should be reserved for recreation which is not specially suitable for agriculture or building, such as low-lying tracts and river valleys, which often contain the most charming scenery and take the desired radial form from town to country, as does the Porter Brook Parkway in Sheffield.

The Pedestrian Parkway—such as the Riverside walk—is the ideal link between open spaces or town and country; but it is also necessary to connect up the parts of the park system by links which are shared with the traffic system. The traffic parkway has already been mentioned: its park function would be to connect the town with some distant reservation of wild or special character. There are also within the town roads which have a sufficiently generous grass and tree-planted strip to warrant their being considered of this hybrid park and traffic type; the word “Boulevard” should be restricted to this type—Queen’s Drive, Liverpool, might be quoted as an example of *ring* form in this country. The Champs Élysées and its continuation in Paris, the Avenue de Louise in Bruxelles and the recently formed Fairmount Parkway which has been cut through from the very centre of Philadelphia, are examples of the *radial* boulevard. These major radials called by the Germans “Ausfall Strassen” have the exhilarating effect of pointing from the centre of the largest city direct at the open country.

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The Agricultural Countryside as open space, the uncultivated Common, unenclosed Mountain and Down land and the National Park will be described in Part III. But a definite step in the limiting of town growth by *permanent* agricultural reservation or Green Belt has been taken for London by the L.C.C. and surrounding counties, acting jointly.

Community Grouping

The conscious aim at the creation of the community unit is one of the more recent instruments of planning: it is of course an application or recovery of the oldest sign of social intercourse. But when growth is rapid, artificial and standardized, there is a tendency to think in and plan for numbers rather than for social groups. So much of the housing after 1918 consisted of mere slabs or dumps of building, sometimes excellent in detail but lacking in major form. Much research has been given to determining a satisfactory Neighbourhood unit: the size and complexity and what shall form the nucleus of its centre. The simplest unit might be the area served by an elementary school: several of these might make up a neighbourhood unit which would support a Community centre and a Secondary School. A population of ten thousand has been suggested as the size for such a unit in a normal Town. A theory, which has been tried in Russia, seeks to build up the whole urban mass by means of progressively larger and more complex units culminating in the civic centre.

CHAPTER V

THE PLAN

Special Aspects—The Centre—Housing—
Architecture and Amenities—Wind and Sun.

The Centre

IN the centre of cities it is a matter of re-planning ; and important as it is to have ideas about new towns upon clean sites, it is very necessary to consider what can be done with the towns which we have and which are not likely to be quite cleared out, as Le Corbusier proposed for Paris. Indeed, if the population growth slows down to being stationary, the reform of our existing towns may become the chief activity of planning. Strictly speaking it is an affair of zoning, communications, open spaces and community grouping; but there is a tenseness of atmosphere about central planning that does not occur in the development of new areas: in the latter case you are planning in the open, in anticipation of an enhanced use and consequent increase of value; your plan may in some sites have made the increase rather less than had been hoped, but even playing fields are better value than agricultural land. In the town itself high values are already created: your central improvements will decentralize

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Industry and population, or you may divert traffic upon which a business depends. Hence the nervousness that greets any increase in legislative powers. One means of allaying anxiety is the preparation of a time or period plan; whereas *new* planning is laid down to assist development when it occurs, so that the

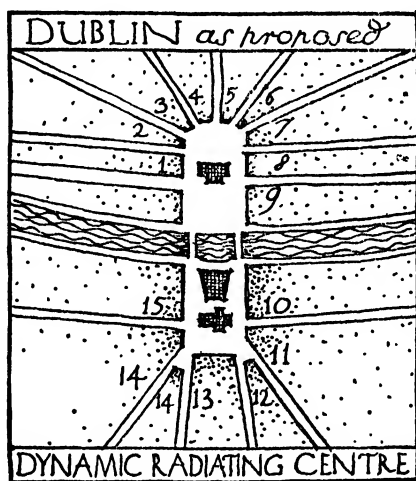


FIG. 28.

time of its occurrence is not so important, in *re-planning* it is essential to indicate in what order improvements are to take place. In the plan for Dublin it was shown how the single remodelling of the centre could be done in three stages; all alterations were put into one or other of three periods—immediate urgency—to be carried out in the next ten years—subse-

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quent accomplishment. A long and short term plan, besides giving the municipality a programme to work to, allows the traders to base their proposals for keeping their property up-to-date with some degree of certainty.

Towns at the centre are like worn-out machines, carrying on their work with creaking

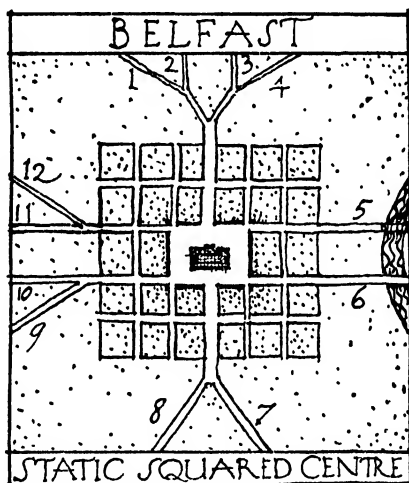


FIG. 29.

and back-firing, and with a maximum expenditure of energy and loss of time through friction. The following is a brief list of the things that require rectification at the centres of the majority of large towns, many of which are lying derelict as a result of bombing:—

(i) Decentralisation of Industry and population from congested areas;

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(ii) A solution of the central traffic complex; the functions of streets to be determined; the nondescript street to go;

(iii) Inter-communication congestion in the town itself to be eased by piercing of new streets through worn-out property (first practised by Haussmann and more economic than widening on expensive frontages);

(iv) Scattered administrative functions to be centralized so far as convenient away from business buildings;

(v) Shopping streets at present insufficient or disjointed to be connected and freed from through traffic;

(vi) Connections between stations to be improved, especially since the amalgamation of the railways (in some places a union station would free much central space);

(vii) Parking grounds, a new form of open space required near the centre;

(viii) Blighted areas occupying the inner ring to be cleared out and a use determined for the vacated area, whether for business, industrial or a returned population on an urbanly planned arrangement of lower density;

(ix) The relation of height and volume of buildings to street traffic to be re-studied; it is not, for example, economic in the public interest to buy at huge expense a few yards of widened street from a Store which proceeds to double its capacity and uses the extra width for the traffic its enlarged premises create.

Peddling improvements without any plan or

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policy behind them are worse than useless: they are similar to placing bits of sticking plaster upon the sore places of a body permeated with disease—the patches, if anything, cause a deeper festering of the local wounds. A diagnosis—in the form of a survey of the most searching nature—is necessary, including among its most important items, land values, ownership and the actual conditions of property in relation to its functions. The plan that should be made must be a comprehensive one; there is all the difference between the small beginnings of a big plan—the first period—and a small plan. And by a comprehensive plan is meant one of which the remodelling of the centre is but a part; for the decentralization of industry upon a regional basis must have direct repercussion upon the centre.

New planning, which, as has been pointed out, does not entail constructive works, is not costly: almost the sole expense is the purchase of open space (which would be done without a plan and at greater expense). Where extensive destruction of central areas has taken place, as in the City of London, Plymouth, Coventry and other towns, a plan of rebuilding giving all the street widening and open space required and an equal or greater floor area in the business premises can be devised without causing any claims for compensation. Joseph Chamberlain's great work at Birmingham, by which Corporation Street and New Street replaced worn-out slum property, cost over 1½ millions; but it has amply repaid the

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city not only by the leasing of the land ¹ but by the enormously increased rateable value of two of the best business and shopping streets. And what of the imponderable gain to health through the clearance and rehousing? The making of a *big* plan in an improvement of this sort, means purchasing more land than is actually required for the public works, so that the community may directly have the enhanced value as well as collecting betterment. No one knows how much Haussmann's Paris cost—it is often said that his estimates were exceeded by 50 per cent; but no one denies that Paris has benefited permanently and enormously from his vast operations.

The historic centres of old towns have received more attention on the Continent than with us; it is a highly complicated problem. The separation of the centre into a distinct zone, as has been done at Frankfort and Nuremberg, and to a lesser degree at Vienna, entails strict regulation for rebuilding. A simple freedom from through traffic is not sufficient, though it may avoid central widening. The external growth of Oxford is reflected in the enlarged central business premises, which has not occurred in Cambridge to the same extent. Stratford-on-Avon, faced with the possibility of becoming a Midland manufacturing town, decided that this would jeopardize its prosperity based upon Shakespeare and

¹ The leases are seventy-five years' duration; as these fall in a few years hence, Birmingham will become one of the richest municipalities in the kingdom.

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the beauty of an old country town. Jerusalem has heroically resisted wheeled traffic in the ancient city (except at one point) which remains intact, all new growth (except religious establishments) being outside. Venice, however, shows an extremely skilful and subtle modernization within the old frame, through adherence to the old scale : the contrast is most marked when a modern steamer anchors off the Piazza of St. Mark's.

Housing

It may seem somewhat strange for Housing, to which subject town planning was a humble appendage in the original 1909 Act, to be relegated to a sub-title in a single chapter. But it must have been evident that the subject of housing enters into planning continuously, whether under the heading of density, of the living conditions of the population, of slum clearance or of suburban growth. Where people live is of even more vital importance than where they work or play: so important is it that the earlier Continental town-planners could say that England was the fountain-head of town planning, because she had produced the low density garden suburb, which appeared as a revelation to Continental tenement-housed people. Nevertheless, housing, however important an aspect, is not town planning.

The consideration of housing naturally comes under two heads ; slum clearance, re-hous-

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ing, and the provision of new houses on clear sites. In this country the latter side has been prosecuted with greater energy since 1918 than the former. Over four million new houses, most of the smaller type, have been built; one and a half million with State assistance. About 16,000,000 people are living in new houses; more than twice the combined total populations of Manchester, Birmingham, Liverpool, Glasgow, Sheffield, Leeds, Bradford, Halifax, and half a dozen more county boroughs have been housed in different parts of the country at the average density of about twelve houses per acre. 240,000 houses have been demolished in insanitary areas; this falls short by 40,000 of the original slum clearance program. The four million new houses, contrary to expectations, have not emptied the slums, which it has taken war evacuation and bombing to do; at the outbreak of war the total population of the country living in overcrowded and unfit houses was estimated at 2,000,000. The position is now much worse: to the undemolished condemned houses must be added those bombed, both old and new, and those which through lack of repairs and through shaking have deteriorated into the unfit class. From this it may be seen that urban rehousing has not yet been seriously begun: social urgency therefore will necessitate large scale decentralisation and central replanning for this purpose, as well as for rebuilding those areas damaged by enemy action.

It is interesting to speculate what might have

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been done if three or four million people out of the sixteen million who have been provided with *detailed* local residential planning in this country had had their housing made the subject of a really *comprehensive* plan. A hundred real *new* towns in different parts of the country¹ would have been more constructive, if also more adventurous, than a multitude of garden suburbs. In fact this post-war housing as regards a *general theory of civic planning*, does not show much advance upon the Victorian muddle.

The rivalry between the single-family house and the tenement which had been settled in favour of the single house before 1914 (except for certain cities like Liverpool requiring a casual dock population at the centre) appears to be now again an open question. It is even suggested that for the cheapest type of housing on *new* sites, for those cleared out of slums, a tenement method—not necessarily lofty—should be adopted. It is essential, however, that maximum standards of persons per acre should be adopted, whether building be in houses or flats, otherwise there is a tendency for height of tenements and cost of land to act or react on each other. In the cleared central areas that are not wanted for industrial or business growth there will be an opportunity for real *urban*

¹ As recommended by two Departmental Committees, Unhealthy Areas (Neville Chamberlain, Chairman) and South Wales Regional Survey (Sir W. Seager, Chairman): also the Hundred New Towns organization.

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housing upon land already provided with public services: here room can be found for the terraced house.

The planning in detail of suburban areas shows great variety in different countries: with us the admirable compromise between formality and site-picturesqueness evolved by Sir Raymond

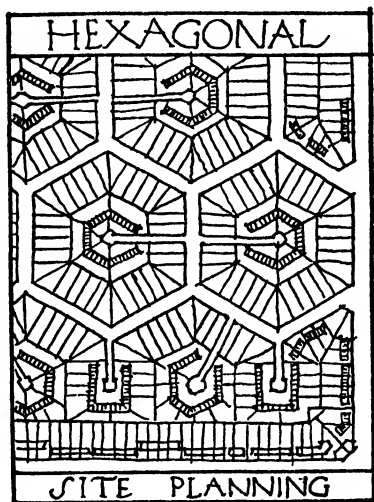


FIG. 30.

Unwin has persisted, with, on the whole, great success. But builders are still inclined to stick to wasteful rectangular planning, and do not realize the value of culs-de-sac in shortening road lengths and cheapening constructive costs of roadmaking. On the Continent there has been recently a reversion towards an extremely austere type of planning in long parallel lines,

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sometimes slightly curved. The simple, lofty, white, flat-roofed buildings with an occasional break are impressive and, where the grace of a terminal feature is introduced, can be beautiful; public gardening is also sparingly introduced but without the charm of the earlier Viennese examples. Le Corbusier advocates a return to the hard uneconomic Gridiron; and Mr. Barry Parker has made a definite move towards the more insect-type of the hexagonal unit plan which is capable of producing some unusual results with building blocks and open spaces: it is claimed that the wisdom of the bees will save 10 per cent of road length over any squared planning, and that if the major axis of the hexagons runs north and south there can be no north frontages. There is scope for new ideas in residential lay-out in our post-war rebuilding.

Architecture and Amenities

Architecture and general Amenities have been left to the last but their importance is to be judged from the order given to beauty in the first chapter of this part. In the city itself the buildings are its most quickly grasped and obvious outward manifestations; seemliness of plan is perhaps instinctively felt rather than instantaneously realized; next to architectural treatment is the appeal of landscape design. All three, plan, buildings and gardening, should be here subjected to a highly artificialized urban treatment.

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In re-modelling the central areas, therefore, it is impossible to stop at the plan only; some general indications of the architectural treatment must be given, there must be positive design. The regrettable absence of such constructive direction can be seen in the new Kingsway and the rebuilt Regent Street; in both cases the direction would have been easy through the existence of a single landowner (the Crown and the L.C.C.). The original Regent Street *had* been subject to this direction, showing that the beginning of the nineteenth century was more advanced than the beginning of the twentieth in this aspect of town planning. Building conforming to a general design (though not necessarily in uniformity) produces a finer effect and costs less than allowing each building complete license. (The much-emphasized individuality of mediæval buildings was qualified by a greater degree of harmony in style and materials than is often supposed.)

So far as civic design is concerned, it is the association of one building with its fellows and a building in relation to its setting that is important, not the actual design of the individual building, which is the concern of pure Architecture. However perfectly a building may fulfil its function, it is like matter in the wrong place, if it does not suit its surroundings. And in the properly planned city there should be a clear distinction made in situation and treatment between buildings of a public character and business premises and private dwellings. There

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is also the extremely acute problem of the purely utilitarian structure, a work of skilful engineering rather than architecture. There is a school of modern thought which has revived the old fallacy that if a thing is useful and precisely functional it is inevitably beautiful; there are others who hold that there are absolute standards of beauty, though not necessarily expressed in terms of the past. A Spanish architect has recently put forward the interesting suggestion that under zoning powers structural works of pure engineering should be segregated from works of architecture. To a certain extent this is already done, for other reasons, in the separation of industrial areas. The closer rapprochement between architect, landscapist, engineer and surveyor may in time produce a synthesis which is more valuable than compartmental segregation, however neat.

Improved architecture, both civic and individual, depends of course upon education—of the general public and of the architects, the one to desire and the other to provide good building; in the meantime, however, it is necessary to have some machinery to prevent outrage, which is the modest rôle of the architectural control that may be and should be exercised under planning schemes. In this country, except in those places where there is a special Act (as in Liverpool) control of the external appearance of buildings is only possible as part of a scheme; this is the logical procedure, as it is in *relation* to surroundings that the single

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building is to be judged ; it has, however, the disadvantage that it is not certain that planning schemes will be made for all land and there may be areas where so little is happening that a scheme is not prepared ; then when suddenly an unexpected outbreak of building occurs, there is no means of exercising control. Given the power to control, the next point is to decide by whom it is to be done or rather on what advice the local authority (in whom alone rests the legal power under the scheme) shall act ; for everyone will realize that this is not a similar question to that of administering by-laws or seeing whether densities and use conform with zoning requirements. (Height restrictions may indeed produce certain general elevational effects as they have done in New York.) The following machinery has been set up and has been found to work without producing a hard and tight bureaucratic control which might be in danger of stifling originality. The local authority, whether it is in the town or country, calls in the advice of a Commission or Panel, consisting chiefly of architects elected by their own societies but leavened with other interests ; these panels are recognized by the Ministry of Health for the purpose, but they are merely advisory in action and may be consulted by intending builders. If after full negotiations the design cannot be recommended for approval, it is referred (unless the builder acquiesces) to a Tribunal which may be either a Court of Law or preferably a special Committee of three, an Architect, a Surveyor and

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a Justice of the Peace, set up under the scheme. Their decision is final and if the intending builder disregards it the local authority has the right to impose a daily fine so long as the building stands.

Two supplementary aids are advisable : firstly, a pamphlet (chiefly for country use) giving some very general guidance as to suitable materials, both natural and substitute, for the district and other useful information for those who have only an elementary knowledge of architectural fitness ; secondly, whole designs of simple buildings produced by groups of architects upon a scheme approved by the R.I.B.A. It would also be extremely useful if standardized parts, windows, doorheads, etc., were available, of good design, as they were in the eighteenth century.

By such methods nothing lower than a passable type of architecture should be inflicted on town or country : the first-rate works will continue to be produced by original genius or adequate talent.

The quality of design is not limited to buildings ; it should interpenetrate every aspect and enter into every stage of the plan ; the direction or curve of a road, the treatment of an intersection, the conformity to or contrast between natural features and human additions, the siting of a group of houses, all these and many more are matters requiring, in addition to engineering skill, Design, in which the claims of natural and artificial promptings are duly respected.

Under this heading of Amenity is also included the preservation of natural or artificial features

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such as groups of trees and woodlands, and places and buildings of historic interest; and in the opposite direction the prevention of disfigurement, under which advertisements may be controlled by powers slightly wider (because based on a plan) than under the Regulation Acts.

Wind and Sun are first-rate factors in planning, frequently determining lay-out: as for example when a noxious industry must be located and it is not desired to build houses in the fairway of the fumes. Again, when close-building is required a few feet of intervening width may make all the difference in obtaining adequate sunlight. But it is a mistake to make winds all-important, as did Vitruvius, who seems to have been afraid of draughts; both sun and winds may to a great extent be dealt with by the planning of buildings:—thus a north aspect does not affect a house whose living-rooms face south.



FIG. 81.

CHAPTER VI

LEGAL POWERS AND PERSUASIVE PLANNING

PLANNING requires legal implementation, which varies in different countries according to the traditional way of doing things and to the temperament of the nation. A country in which rioters when fleeing from a police baton charge across an open space are studious to keep to the asphalt paths (because of strongly worded "*Verboten*" police notices) and who thereby diminish their chances of escape, are more likely to be amenable to legal planning control than an insular race that has been nourished on the doctrine of the rights of the individual and the persistence of the castle idea of the home. For English purposes it is not therefore very helpful to go deeply into the methods adopted in other countries, nor is a comparison practicable without a great deal of explanation of juridical and local governmental systems. The similar, though not identical practice of technique on which different countries are engaged, will be embodied in quite distinct forms of legalizing powers. For example, in Germany, side by side with the "traditional competence" or acquiescence in town planning which has been alluded to, there is a system of dyarchy in local government ; on

the one hand the local authorities acting through the Burgermeister control their affairs more completely than do ours : but, on the other, there is the parallel police authority under which, among many other things, all building permits are issued. Architectural control strictly comes under the jurisdiction of the police, and not under that of the local authority. It is clear that legislation under such conditions is difficult for a foreigner to understand ; and it has always been something of a puzzle to English engineers to find out exactly who is responsible for the admirable planning of German towns and how it gets carried out. In France planning has been in the hands of a kind of District Commissioner (Haussmann was Prefêt of the Seine, not an official of the City of Paris) ; the Acts of 1919 and 1924 make obligatory the preparation of schemes by all authorities in a Department, ordered to do so by a commission, whose findings are endorsed by the Prefêt. This appears to correspond to a sort of regional devolution of our Ministry of Health powers, but with a central Planning Commission for final approval. The effect of this legislation appears to have retarded planning in France. In America, as has been mentioned, it is usual to divide up different aspects of planning, zoning, highways and parks being frequently considered separately. The State has the power to grant a city the right to make a Zoning Ordinance, but there is practically no State supervision over the Ordinance itself or its working. It is usual to appoint

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a special *ad hoc* Commission to carry out one or other of these aspects of city planning. Thus the Westchester County Park Commission administers 16,000 acres of park and 140 miles of parkway.

English legal planning, initiated by John Burns, had a clean sheet: there was neither traditional competence (continuity had been snapped during the nineteenth century) nor was there any complexity or duality of control from above. The local authorities were neatly divided into two camps—the County Boroughs and County Councils, the latter including Municipal Boroughs, Urban District and Rural District Councils. For the vast majority of the purposes of town planning the Local Government Board (later to become the Ministry of Health) stood as the head, without intervening regional or other divisional powers. The Ministry of Transport when it was created, however, introduced an element of uncertainty which was increased owing to County Councils not having been made planning authorities in the first Act. The regrettable result of this was to take main roads, outside the big towns, out of their setting in the country and to consider them, through the Ministry of Transport and the County Councils, as means of locomotion operating *in vacuo*. This has been partly remedied, but the country has suffered grievously from the impeding effects of uncontrolled building upon through traffic.

There have been three principal Acts: their respective names are instructive, the first “The

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Housing, Town Planning, etc., Act, 1909," the second "The Town Planning Act, 1925," and the third "The Town and Country Planning Act, 1932." Various amendments appeared between these three, but the second and third have been consolidating Acts, so that the whole powers up to date are therein contained, with exception of course of subsidiary operations such as power to raise money, acquire land, settle disputes, etc. The growing complexity of the subject is shown by the length of these Acts, the pages given to town planning in 1909 was 10, in 1925, 22, and in 1932, 90. The development of powers has been mainly in the scope of land to be included in planning schemes: at first it was, substantially, limited to suburban land described as "land which is in the course of development or appears likely to be used for building purposes". "Neighbouring lands" might also be included, which allowed built-up areas and land not likely to be used for building purposes to be included if it could be shown to be necessary to the building land. These two types of land were not included for their own sake, but to complete, as it were, the suburban planning scheme. Next (in 1919) joint committees with power to plan composite regions were authorized, and it no longer became necessary to obtain the Minister's consent for an authority to plan its own area (the Minister having the right, of course, to cut out either built-up or unlikely land if he thought too much was included). It was also then made obligatory

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for boroughs or urban districts with a population over 20,000 to prepare a scheme, and the County Council was given powers to act in default if the smaller authorities failed to prepare a desirable scheme. In 1923 places of "special architectural, historic or artistic interests," although consisting entirely of built-up property, could have schemes prepared with limited powers. The 1925 Act was chiefly of a consolidating nature : this indeed was a year of great activity ; the Law of Property and Housing were also consolidated and a Public Health and Roads Improvement Act were passed ; in all these was some definite connection with planning, even to the extent, one might venture to suggest, of the overlapping of powers. In the Local Government Act of 1929 the County Councils at last figure as participating authorities in joint town planning schemes. Then came the 1932 Town and Country Planning Act which widens the scope of schemes "to any land whether there are or are not buildings thereon," and in addition to the original objects of controlling the development of the land and of securing proper sanitary conditions, amenity and convenience are added the objects of "preserving existing buildings or other objects of architectural, historic or artistic interest and places of natural interest or beauty, and generally of protecting existing amenities whether in urban or rural portions of the area". The full scope of this first clause is limited by a subsequent one (6) which requires the approval of the Minister where land is already built on or

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which appears remote from development, and on which the minister must satisfy himself on a variety of alternative reasons. Though these alternatives embrace a very wide field, this clause is retrograde in that it makes a return to the procedure of the 1909 Act, under which at a preliminary inquiry it was necessary to make out a *prima facie* case for the inclusion of any land in a scheme. The advisability of planning should no longer require demonstration.

In spite of the whittling down in many directions of the powers of the original Bill, the 1932 Act has the machinery for dealing with any sort of land whether in the centre of London or on the remotest fells of Cumberland. The growth in the scope and size of area controlled under planning has thus been in inverse ratio to the break up of the great estates and the size of individual ownerships. The approval of completed Schemes under this Act has been slow, but a large proportion of the country is under the limited interim powers of the period of preparation.

The net results, however, of thirty years of planning powers have been extremely disappointing.

The special feature of this English planning procedure is the production of a Scheme or map, which has the value of publicly letting people know what it is intended to do and of giving owners and any interested persons a chance to object. An owner, in fact, can give his ideas to

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the local authority preparing the scheme, and have them incorporated in it. The plan, when approved by the Minister of Health, has the effect as though it were a separate Act of Parliament¹ and possesses very definite powers of enforcement. A scheme can of course be a strong one or a weak one—it can also be either too rigid or too supple. Simply to register what is taking place, correcting some minor abuses, and label it town planning is worthless; nor is it courageous to zone most of the land as “Undetermined,” and to settle what and where buildings shall go when development actually occurs. These are real dangers in planning. For a town of 50,000 inhabitants to surround itself with a residential zone big enough for a million people with permissive use for almost anything, will lead to sporadic and formless growth anywhere within the area—the most that will have been achieved is the prevention of undue crowding and a certain amount of sorting out during development. On the other hand, a stern and rigid plan worked out into great detail with strict limitation to defined areas may lead to claims for compensation and frequent amendments of the scheme.

What is the way out of this dilemma, other than a careful and reasonable weighing up of the claims of looseness and tightness? As regards

¹ Under the 1932 Act a scheme must pass the formality of being laid before both Houses of Parliament and in certain circumstances must be approved by resolution.

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the actual zoning-treatment of wide areas, at present untinged with building, the new Act gives some help which will be described under "Country Planning" (Chap. II, Part III). But there is another method of influencing planning in addition to legal compulsion which has not been used as much as it might be; it may be called Persuasive Planning. It is one thing to say to a manufacturer—here is our town plan, we have put your factory zone there, and there you go or nowhere. The factory zone may have been well selected, but if there is nothing more in it, the chances are that the manufacturer has set his eye on another area, apparently equally suitable, but which has been labelled "Residential". The application of the notion of persuasive planning to this instance would mean that the town planning authority has been in touch with the railway company for a siding; the new arterial road has been brought into contact with the area; the Central Electricity Board has been encouraged to bring their suitably stepped-down cable through it; water is available; trade effluent is provided for, instead of being obstructed, as so often happens. The manufacturer can hardly look elsewhere; zoning then is no hardship; on the contrary, it prevents obstructive buildings and ensures the proper detailed planning of this area. The organization of these great services in an anticipatory way, instead of supinely following growth, is the great adjunct or counterpart of legal planning. And yet it often happens that through

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lack of co-ordination the public service is directly antagonistic to the requirements of the plan ; a low tension electric cable is laid along a road (perhaps because some signs of building is evident), whereas the local authority is attempting by means of a plan to check ribboning which is going to be extremely expensive to sewer.

A little thought will suggest at once that this persuasive planning can be used for wider purposes; a decentralization of industry can best be achieved in this manner; and, it may be added, the construction of housing groups by local authorities (as distinct from showing residential zones on a scheme) can be used to bring about a genuine form of satellite growth. It has been shown how this occurred naturally at Doncaster, through low-lying land and widely spaced coal mines ; the same thing could be brought about artificially, if a sufficiently bold and constructive background were given to planning schemes. The acquisition of land by one or more local authority (including a County Council) for garden cities (or industrial satellite towns), which has been included as a clause in town planning legislation since 1925, has not yet been made use of. If some half-million new houses are required for slum clearance,¹ those which are decentralized to reduce central densities should be built as complete new units with their work places in conjunction. There is a definite tendency for industry to move out of the centre

¹ See page 158; the estimate of 2,000,000 people who required re-housing at the outbreak of war.

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of cities if two things can be arranged—ample sites well provided with the necessary services and available labour. Industry, labour and public services combined form the basis for a plan.

If town planning, in fact, is to be a really constructive and directing force, all agencies will have to work together, Chambers of Commerce as well as Local Authorities and Authorized Undertakings (such as electricity, railways, etc.). The economy to be effected by this sort of ordered growth in place of complete haphazard or even regularized individualism can be appreciated.

NOTE.—The basic reform required in new (1942) Legislation is a satisfactory solution of the problem of Land values. The Planner asks for a clean sheet upon which to construct his plan; he is not himself concerned whether this is arrived at by Nationalization, Pooling or public Purchase. A Committee under the Chairmanship of Mr. Justice Uthwatt has reported upon the best method. [See pp. 208-210.]

PART III

COUNTRY PLANNING AND PRESERVATION

CHAPTER I

THE ENGLISH COUNTRYSIDE : ITS FORMATION AND STUDY

THE Town and Country Planning Act rightly includes the statutory powers to deal with both these broad divisions of the land under one instrument. But there should be no attempt at a fusion or confusion between the two: town should be town, and country country; urban and rural can never be interchangeable adjectives. If this fundamental polarity, as postulated in Chapter I (Part I), is grasped there should be no danger. Perhaps the best line of action is suggested by the instinctive attitude one adopts. Towards the town all is centripetal, converging on to a concentrated and limited area; this concentration must of course be controlled and it may consist of a large mass, a detached satellite suburb, a country town or even a village; but the attitude towards it is identical—from all sides people and interests are converging inwards and ultimately upwards. Towards the country all is centrifugal: with our

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backs on the town or village we look out in all directions on an ever-widening, opening horizon.

There is, then, no fear about allowing an interchange of motives between these two, so long as their identity is maintained. Thus Ebenezer Howard's third magnet ¹ to counteract the overpopulation of the town and the depopulation of the countryside by means of garden cities and satellites is not a violation of this thesis. The garden cities in which both town and country working folk are to be housed are distinct and definite entities standing in the midst of agricultural belts or tracts which are to remain for all time inviolate. The farm worker instead of living his isolated life is to have the benefits of social existence in large centres of population situated conveniently for access to his work. It is the last thing that is necessary for the preservation of the countryside that it should be depopulated, and there is nothing more antagonistic to the beauty and seemliness of typical country than the untidiness of uncultivated ground, unless it be the indiscriminate scattering over its face of discordant urban elements, either transitory or permanent. Even in the eighteenth century it could be said that :

The Town has tinged the country ; and the stain
Appears a spot upon a vestal's robe
The worse for what it spoils.

The English countryside, however, is not a Vestal but rather a Ceres, a well-cultivated

¹ *Garden Cities of To-morrow*, "The Three Magnets."

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matron, who duly produces, or should, her annual progeny ! If therefore it is true that the town should not invade the country as a town, the regularizing hand of man has nevertheless sophisticated the country to serve his needs : the pioneer spirit has been planning the English countryside for some two thousand years, without, however, in spite of the above quotation, until the last century introducing much that is discordant. Those who suggest that country planning is a new and repugnant idea are indeed ignorant of the elements of our history.

This prolonged and profound process of remodelling by human hands is of course brief compared with the time taken in shaping by natural denudation and accretion, but in this island it comprises most of our known history and makes the unravelling of the component parts even more difficult than in the history of town building. The country we see to-day, in fact, has been gradually built up as a result of the successive work of Briton (using the word for the early inhabitants), Roman, Saxon, Dane, Norman and Modern. The latter term should be further subdivided into the seventeenth- and eighteenth-century landed proprietors, and the nineteenth century, using the last as a sort of personification of that age.

The earliest inhabitants set themselves to clear the forest, making their green ridge ways, founding settlements and, besides these utilitarian contributions, erecting those mighty earth- and stone-works which first impressed

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man's artificial hand upon the form of the country and remain to-day in many places the dominating note of the scene, to nature's original tonic. Maiden Castle, near Dorchester, the Hereford Beacon, Silbury Hill and many other re-modellings or wholly artificial features of the earth's surface astonish us to-day by their size and design : even more impressive, though not having so distant an effect upon the landscape, are the stone remains, of which of course Stonehenge outstands both in magnificence of design, scale and setting.

The Romans were the first to plan the country consciously upon a national scale : like so much of historic planning there was a military but not necessarily a militaristic motive in their work. It is doubtful if this land has ever since been so comprehensively planned upon national lines, as may be most clearly seen on the admirable map of Roman England published by the Ordnance Survey Department, where the system of roads, towns, camps and forts are shown in relation to the contour of the ground : in addition, the farming method by means of villas or large country establishments, can be seen in its local intensities. Hadrian's Wall from east to west coast is perhaps the most impressive masonry monument which they have left in the midst of some of the wildest of our scenery. It must be confessed that the Romans were not particularly sympathetic to the lie of the land in their great road schemes : that straightness which is so admirable in the Edgware Road,

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compared with the infirmity of purpose of some later exits from London, can become hard and mechanical engineering when it neglects natural obstacles such as that mountain in the Lake District, actually called High Street because of the undeflected road that passed over it. High ground was doubtless sought to afford a continuous look out on march, but there are practical disadvantages in a mountain-top 2,700 feet above sea level in winter.

The Saxon, neglecting roads, towns and villas, established the English village system, grouping the farms, cottages, manor house and church. The avoidance of building these on the main roads is very marked : it has been said that the Saxon, either through superstition or to show his contempt of Roman culture, deliberately avoided roads and town sites : added to this there was the need for water, which the high ground of the roads did not provide. In the Cotswolds, for instance, you find a chain of villages like the Duntisbournes and Daglingworth following the valley stream, with the Roman road, Ermine Street, running parallel along the ridge devoid of any building except a solitary inn. This same road when it drops down the steep hill of Birdlip on to the plain has 5 miles of nearly continuous modern ribbon building into the city of Gloucester ; singular contrast ! caused by the simple fact that water (in a pipe) is laid along this length, from the hill reservoir into the town.

The Dane, following on the Saxon, re-established the market town and the borough and

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also founded many more villages, but without apparently producing a distinctive type. In fact, it may be said that the general system of compact English agricultural villages is due to Saxon and Dane, at any rate as regards their siting and distribution; the scattered community found so frequently in the west appears to be a late Celtic contribution. The situation of the villages in relation to the roads is found continued in later times, probably for the same reason that whereas the road followed high ground, for dryness now rather than observation, the villages still sought the water: but the result has been equally fortunate, as may be seen on such roads as that from Oxford to Banbury or Bath to Nailsworth. For mile after mile the road runs unobstructed by buildings, while to right and left are seen, adjacent yet distinct, the grouped villages. During this pre-Conquest period also another extremely important, though not so visible, piece of country planning was undertaken, the division into parishes.¹ The extent to which the Romans surveyed the country by their Agrimensores and divided it up for cultivation is uncertain, but the parish divisions remain substantially to this day. In many places the Roman roads formed one boundary, showing that an artificial line was to be made use of. In others the parish areas were planned to make the best use of a specially

¹ Originally the Saxons called the local area a township: the parish which usually coincided was introduced with Christianity.

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marked topography : thus there are many consisting of long narrow strips giving a piece of downland for grazing, the spring site for the village and the valley area for cultivation and woodland ; many of the Thames parishes are in narrow strips to give a wharfage on the river. The county boundaries and somewhat obscure "Hundreds" were also signs of planning for administrative purposes.

Upon this background of country, already of fairly complicated texture, descended the Norman. The first thing that William did was to make the completest national survey that has yet been undertaken : Domesday Book. The form of administration, which England then had, was fixed and has so remained with minor adjustments ever since. But the biggest visible contribution of the five centuries which succeeded the Conquest consisted in the building up of the village sites which the Norman inherited or rather in which the Brito-Saxon race continued to reside under feudal conditions ; in addition there were new sites dominated by cathedral, abbey or castle, round which a new town would grow up. Their cathedrals and the village churches still form the human climaxes of the wide English countryside, as their bridges, a never-failing combination of fitness and beauty, complete the local scene ; abbey and castle have either disappeared or left their fragmentary remains to introduce a new, and to some people, a decadent element, that of picturesque ruin, into the scene.

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The Middle Ages were, however, not interested in the picturesque, either in architecture or landscape: they had scant reverence for old buildings and would not have understood our delight in the mellowing effect of age; the country too was probably regarded by them from a strictly economic point of view. Though they were evidently fond of flowers, they were probably insensible to the beauties of landscape: during their era the shrinking of waste land and forests continued changing the face of England until by the sixteenth century, under the open field system, it must have resembled over large areas congeries of allotment gardens. Mediæval country to our eyes would appear patchy in effect and there would be no hedges and few trees outside the forests and the village orchards. There are large stretches of northern France, in Picardie and Artois, which, with their unobstructed bare fields, so efficient and so dull, seen from the air like patchwork quilts, and their villages each with its neat squared orchards, must resemble the effect of Mediæval England; the fields, however, would be much more closely subdivided.

During the seventeenth and eighteenth centuries a profound change came over the face of the country: the diversion of wealth from the Church to the aristocracy, and the safety of the countryside from war, led to the formation of the great landed estates and the creation of the country houses which abound in England as they do in no other country in the world. The

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Englishman when he founded a family built a palace in the country but was content with a square box in town : the country house required a garden for its immediate setting and this soon led to the desire for a Park—a piece of enclosed country in which grazing alone was allowed and in which quasi-wild animals—the three types of deer and even wild cattle—might be seen roaming at large. The park added a greater richness to the landscape ; meanwhile the allotment fields were absorbed into farms divided into conveniently-sized units and given houses or barns often away from the village ; the wastes separating the villages were reclaimed and enclosed. Whether this latter was sound on social lines, it increased the efficiency of farming and altered the appearance of the country, taming its wildness. Most of the Commons that still remain were probably left because they were not thought worth the trouble of reclaiming agriculturally ; but their wildness, which to us is such a welcome contrast to the highly cultivated farmland, would be displeasing to the contemporary eye. The owner of a large estate next wished to draw attention to its extent by some boundary, hedge or plantation : the larger permanent fields showed their divisions by stone walls or hedges, whichever was most appropriate, in place of the temporary dividing up of common fields with hurdles (a practice which has survived in East Kent and other places to-day). Isolated trees in fields and hedgerows enclosed and enhanced the landscape and under the system of

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tenant farming they were not cut down. Finally the requirements of shooting produced a carefully designed system of coverts, highly artificial small patches of tree planting: in many parts of England a distant prospect is almost that of a continuous woodland. This park-like effect of the country was the result, partly unconscious, of a desire to irradiate the influence of the private garden and park surrounding the country house, and frequently at the cost of economic agriculture.

Some early attempts have been mentioned (p. 66) to dragoon the country into a formal mould: it was defeated by the invincible undulation of the greater part of English scenery and also because we had a less extravagant nobility, and kings who spent their money in other ways. But the desire persisted and in the eighteenth century this energy was turned into the more feasible channel of landscape gardening under the influence of the picturesque. The new school accepted the natural irregularity of the country and aimed at emphasizing it. Mr. Christopher Hussey in his book *The Picturesque* has drawn attention to the influence upon English country planning which the great painters Claude and Poussin exercised with their calm grand manner; and the Dutchmen, Ruysdael and Hobbema, with their delight in the rough and apparently artless but really skilfully composed scenes. Kent, the architect, and Capability Brown, the gardener, were the protagonists of this new method, and like all

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reformers they swept away much that was beautiful in the formal flower gardens surrounding the houses and many a stately straight avenue. But though their theories were often absurd, their parks were superb, as may be seen at Blenheim, Chatsworth and Fountains Abbey ; and every country squire became an amateur in planting and in the study of the picturesque. It is still by no means realized—if it can ever be definitely known—how much of England was consciously laid out during this time, far beyond the boundary of the home park. For example in the Thames Valley, in the neighbourhood of the Goring gap, the downs were nearly bare 150 years ago : there is evidence here of the careful work of landscape planting which gives its characteristic appearance to this beautiful stretch of river. Repton, a later practitioner, who restored the formal house garden, aptly described the object of landscape art, “ to improve the scenery of a country and to display its native beauties with advantage”. The regularizing and angular hand of man has thus been softened into heightening an effect here, opening a prospect there, or planting out an unseemly object. Indeed tree planting was clearly the most obvious and cheapest instrument : roads, water and buildings were more rarely employed. The artificial ruin (such as Sham Castle seen from the centre of Bath) and the needless temple or bogus hermitage represent the lowest degradation of the art : so too was the great stress laid upon the element of surprise—a cheap effect

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which cannot be repeated.¹ The impetus of the better elements, however, lasted well on into the nineteenth century ; Scott at Abbotsford being by no means the last to add acre to acre so that he might have scope for his grandiose schemes of plantations. Much planting, also, must have been done without such conscious design, dropping inevitably into the picture as did the individual buildings in a mediæval town.

The chief contribution of the nineteenth century towards this composite countryside has been the railways ; the gashes were deep and bleeding in Ruskin's time ; the necessity of even gradients produced cuttings and embankments on a scale quite different from that needed for roads. The outcry is understandable : the cuttings are by now largely healed, though the scars still remain ; and in a valley through which a river meanders, such as the Thames or Wye between Hereford and Ross, the frequent bridges, crudely utilitarian or worse when ornamented, permanently depreciate the natural loveliness of the scene ; only occasionally did a Brunel, engineer-artist, rise to the occasion as at Maidenhead. The other nineteenth-century effect was not so much a modification as a subtraction of area by the conversion wholesale of tracts into industrial towns and the creation of a new and dismal form of waste intervening, like that between Wolverhampton and Birmingham.

¹ See Shenstone's description of his garden at Leasowes for much of this extravagant romanticism.

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It may appear to be taking things in the wrong order to write of man's handiwork on the country before describing its natural and original form : for however much the face may have been touched up and the costume changed, the bones of the earth are Nature's and cannot be beguiled or disguised except in this superficial way. But this volume is concerned with planning by man and not with formation by Nature or what might be called original geography. However, it need hardly be emphasized that knowledge of these basic factors is essential. Underlying all country observation is the Geological structure of the earth, its effects in some places more apparent and more arresting than in others. There are districts where the drama of geologic formation must be re-enacted verbally and diagrammatically before the facts of the country can be grasped. Such are the upheaved " domes " of Derbyshire and the Lakes, where the oldest rocks are found in the highest places. Of chief necessity is this study where there are underground minerals to be worked ; in these cases it may be the location of pits that will be determined according to their depth ; or it may be the order of their working that depends upon intervening strata. In East Kent there is a wedge of water-bearing rocks that over-lies part of the hidden coalfield—this may be a deciding factor in the ultimate fate of the surface. Again, there are the external effects of the formations upon the landscape : the contours, for example, may regularly follow in terraces a succession of layers, as happens upon

the Cotswold escarpment overlooking the Severn Plain : near by, a seeming simple mass like the Mendip plateau may be made up of a series of violent foldings of limestone and old red sandstone, all disparity planed away by denudation and later rocks lying evenly upon this tortured background. Or again, the most striking landscape features, the isolated wooded hills of the Hereford plain may be mere fragments of a slightly harder rock in a vast sea of similar period formation. Down the Wye, when it enters its 10-mile gorge, the alternation between sandstone and limestone, as the river cuts its way indiscriminating through these rocks, produces very different scenery—the limestone always popular and dramatic, the sandstone restrained and regular ; between the river and the Forest of Dean you may walk across from limestone to sandstone and not realize you are doing it : but enter upon the coal measures and the scene changes, chiefly to forest, mineral workings, a different race of men and a different form of habitation.

The big geological formations have their effect, then, upon building materials, soil, crops, human beings and general landscape. But the effects are not simple ; they are complicated by innumerable factors of which the Ice Age is one of the most usual, affecting, as it does, those comparatively thin layers on the surface which mean so much to mankind. The Wirral Peninsula between the Mersey and Dee is a simple mass of new red sandstone : the surface of the

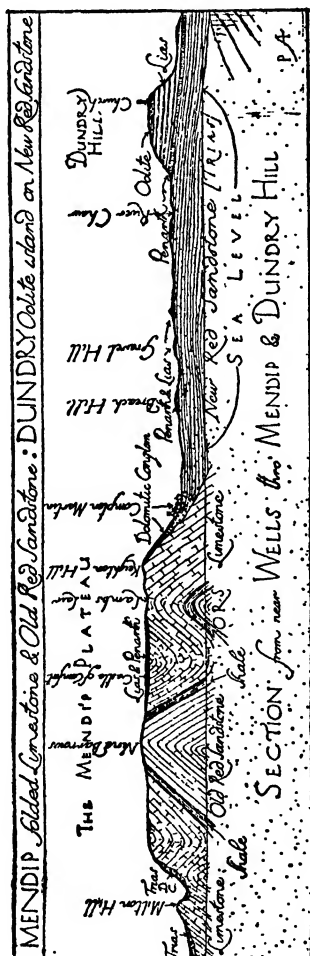


FIG. 82.

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rock if laid bare would be found to be lumpy and pitted all over ; it has been overlaid, however, with a smooth coverlet of glacial clay filling up most of the unevenness except for two main ridges along each estuary where the rock stands bare and for a number of lower patches of sandstone which just emerge from the clay, but hardly rise above it. When the villages were located the ridges were considered too exposed, but nearly all of them were placed upon the patches of rock, which to the casual eye are not discernible. It would also seem that when one patch was filled up, the village, instead of spreading over on to the clay, leapt across to the nearest vacant patch—thus Great Sutton has given birth to Little Sutton, but the latter settling on a bigger patch has outgrown her mother village. Furthermore, these patches being irregularly disposed, the villages have put up with this irregularity rather than space themselves evenly on the clay. What is the reason ? Probably chiefly the greater certainty of finding water at a given depth from wells in the sandstone ; but everything else was also in favour of these sites, dryness, healthiness, all the difference between warm sandstone and clammy clay. The moderns, with scientific damp-courses and ubiquitous water supply can counteract the obvious drawbacks of the clay and so with greater knowledge but less common sense build upon the unattractive and attractive land indifferently.

The Survey of the country, which begins

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with geology, next undertakes the contours and water-courses, largely, of course, conditioned by geological foundation, but requiring separate notation. The levels are both comparative and actual. A valley may be enclosed and sheltered because shut in by higher ground, and yet its floor may be at a great height. A certain maximum height above sea level may be taken as a datum line above which building is not to be encouraged, being above the water-supply level or invading specially preserved wild country. Equally, a low level may be determined upon below which flood land occurs and a drainage system becomes unduly expensive. The natural drainage areas are already mapped out for the recently formed Water Catchment Boards: these fall into their place in the contour survey.

Soil, as the most superficial of geological maps shows, varies so much owing to slight differences of composition, that it may be most conveniently studied with vegetation, both natural and artificial, in the form of crops. This is the most immediately useful analysis of the country for economic purposes, and much of it in detail could be compiled through village surveys based upon the actual observation and practical knowledge of the cultivation of the ground. In any radical scheme for the reform of agriculture an accurate knowledge of the capability of the ground is essential: the rough-and-ready division of the country for grazing, arable, fruit, hop, beet, and afforestation, etc., is largely the result of trial and error. The attempt to grow corn during

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the War on any sort of land is an example of the lack of such a survey, now partially remedied by the Ministry of Agriculture.

A Landscape survey is now necessary : it is not an easy task to try to analyse the components of a landscape and assess its value as beauty, the latter depending so much upon individual reaction. Thus recently in an attempt to discriminate in the Cotswold Hills which was the more precious, the valley scenery or the bare upland wolds, a sharp difference of estimate was discoverable between people whose general views on the country were similar. In an area between Bath and Burnham-on-Sea, an attempt at a fivefold division was made : (i) low-lying land, chiefly along the coast and having the typical quality of reclaimed ground, by no means devoid of attraction ; (ii) normal agricultural land which does not possess any striking landscape effects due either to varied contours or vegetation ; (iii) land, largely agricultural which, owing to contour, vegetation, water or other cause, is of remarkable landscape value ; (iv) wilder areas, which owe much of their effect to remoteness, lofty elevation or absence of recent human handiwork ; (v) individual features of concentrated interest or beauty. It would be interesting to obtain from several people the partition of the country into these neat compartments, and it is safe to say that without actual comparison during selection, geologic formation will be found to play a large though

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not invariable part, the lias usually coinciding with normal scenery (e.g. Isle of Wedmore) and mountain limestone producing remarkable features (e.g. Burrington and Goblin Combe, Cheddar Gorge). These latter are usually found



FIG. 33.

embedded in the areas of special landscape beauty or wildness, but occasionally occur unexpectedly in dull country: thus the River Boyd near Bath which has cut the Wick rocks through a boss of limestone is tame above it and not remarkable below, in spite of the name "Golden Valley"; the river is like a man whose hum-

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drum life flames out for a brief instant into a passionate experience, to resume in tameness the rest of his existence. Such are the sudden unexpected beauties of a country rich in geological formation.

The above classification is confessedly crude and tentative : greater precision, detail and descriptive terminology are required. The human additions to the landscape, whether Prehistoric barrow, Roman camp and road or Mediæval church, village and bridge or country house, besides figuring in the historic survey, must also be considered as essential in the scene, as well, of course, as the more recent additions, railways, new roads, new buildings and electric pylons. These latter features may be absorbed into or stand as discordant blots upon the landscape. It should be possible in a given scene to determine wherein its special characters and beauty consists : what is essential and what may be changed. There must be, in a word, some sort of assessment of values ; it is not enough to be able to say which landscape or piece of country is precious and which of ordinary value, but in what consists the special quality for which it is valuable. It may be found, for instance, that in one scene its afforested character is by no means an essential of its beauty—it may be a comparatively recent addition which masks a more interesting bony structure (as is sometimes seen in a bearded human face) ; in another case tree-planting of no greater age may have enhanced to a high degree an uninteresting scene.

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The cutting down of the trees in the former case may actually cause an increased beauty ; in the latter a fatal desecration. On the other hand, the proposal to afforest an area requires scrutinizing from a landscape no less than from an economic point of view ; the type of tree, whether deciduous or conifer, the method of planting, whether regular or picturesque, continuous or in clumps.

Dr. Vaughan Cornish in two admirable books and other publications¹ has given examples of this more detailed analysis, adopting the " Sample Survey " method of selecting limited areas or scenes for description. These surveys bring out the complexity of the subject : for as Dr. Cornish says, " the physical features of the landscape are but the warp of the garment of beauty in which the world is clad, the weft is woven by the changing light which sweeps o'er hill and dale ".

The appearance of buildings is of as great importance as in the town ; and in areas of special landscape beauty (which should be a sub-division of the agricultural reservation) siting must be subject to stringent control. The colour question is not an easy one ; it is by no means always the case that a retiring colour is the best, as witness the gleaming white Welsh cottage. But there is such a thing as good colour and bad colour, appropriate and inappropriate.

The relation of the individual building to its natural setting may be according to two opposite (but not mutually exclusive) theories, which for

¹ *The Scenery of Civilization.*

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convenience are called the Greek and the Mediæval. The formal shape and distinct colour by *contrast*, the irregular shape and harmonious colour by *assimilation*, are both appropriate on occasion, provided each is intrinsically good. In the Greek method the building is accepted as a frank human contrast, a finished and sophisticated unit of design—the Temple on its rock at Sunium, the white cottage on the fell side. In the Mediæval method the building aims at harmony with surroundings, “being gently incorporated into the scenery of nature”¹: it is, in fact, autochthonous.

Village survey, which has already been alluded to, forms an all-important part of the preliminaries of rural works. The village and its parish is so entirely the basis of rural England that a new Domesday survey should be put in hand as complementary to the broader aspects of regional survey. It is primarily work for the amateur who inevitably takes an interest in old families, folk-lore, place-names, antique buildings and points of contact with national events and personages. But history should be regarded as merely a phase in the existence of the parish, to which the present and the future are indissolubly joined. Its headings follow precisely upon those given for civic and regional surveys, but of course much simplified. A large space would be given to agricultural study and the conditions of housing. Village and Country Survey are equally valuable to the doer as for the thing when done (see p. 135).

¹ Wordsworth.

CHAPTER II

COUNTRY PLANNING

IF the country has been humanly modelled and planned in the past, the need for a continuance of the practice is even more obvious to-day. The only real change is in the personnel that does the work: there are those that think it can still safely be left to the big landowners and their descendants, the little ones—but this is a fallacy that scarcely needs exploding: somebody with as wide or wider area of control than the great landowners must step in—either the State or the Local Authorities. Of course, where great estates still exist there is nothing to prevent them—and indeed they should—prepare their estate plans and have them incorporated in the statutory schemes: they are thus in the same position in which they have always been, except that it is now necessary to produce and declare the plan that was formerly kept in the agent's office. This owner-scheme will give a core of real country feeling to an official scheme: "An owner whose roots are very deep in the soil, who is saturated with the atmosphere of the place, probably knows much better than anybody else can know the sound lines upon which to treat it in the future."

The change in the countryside is really a

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result of twofold action, rural disintegration and urban decentralization. The latter is sometimes thought of as almost exclusively the cause, but if the country had not been open to the urban invasion through the break-up of the estates and the poverty of the farmers who bought their farms, the result would have been less marked: the advent of motor traffic is often given undue prominence and the financial receptiveness of the countryside towards change is underrated. If the country had remained in the hands of the same families who have done so much to create its typical English beauty in the past, it would have shown a few new roads, the electric pylons of the new grid and local distribution posts, and little else. The greater use of the country demanded by this generation might have been directed into more defined areas in the form of regional and national parks or public open spaces, the bulk of the normal country remaining unchanged. It is not necessary to go into the various reasons for the change of rural ownership but merely to emphasize that the former guardians of the country are now no longer in possession.

The urban invasion of the country is not simply the extension of suburban growth in ribbons along the main roads, though that is one of the most obvious, unpleasant and uneconomic results of uncontrolled change. There is first the greater use of the road (i) for inter-urban traffic of a commercial and business nature, which is not concerned with the country at all,

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except as mileage to be covered and which follows well "canalized" routes: (ii) for pleasure traffic, emanating from the towns, and bent upon certain definite attractive spots (for the day or week-end) or upon taking picturesque routes along unfamiliar roads and exploring old-world villages [the roadside country club is a recent development—something more modern and attractive than the old inn]: (iii) for local inter-communication between village and village, and country town. New and widened old roads have been required and made, inevitably leading to further change. The week-end cottage may not have much effect upon the roads, but this is a marked tendency closely related with the move into a flat in the town. The owner of a car is now able to get away on Friday night or Saturday midday and spend his week-end in completely country surroundings, without the old need for packing up, catching trains, arranging to be met at the other end, etc. The improvement of towns and closer living-in, paradoxically, means more country cottages in spots as isolated as possible. It is impossible to say where new building will not now appear in the most remote place: Wordsworth's question:

"Is then no nook of English ground secure
From rash assault?"

is answered in the negative, unless steps are taken to protect it.

The most recent invasion of the country is that of the Rambler, the walker *en masse*. This is a movement with which every sane person

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must have complete sympathy, so long as it is conducted sanely. It is the natural reaction from overmuch mechanical transport, to which it bears somewhat the same relation that folk dancing does to ballroom dancing.

The pace of these changes has been accelerating though they have taken place for the greater part during a period of trade depression. What will be the effect after this (1939) war? The only way to cope with this sudden increase of the invasion, immeasurably greater than what has happened, is to have ready a plan. Legislative aid to agriculture, and town clearance will both be responsible: and, with cheap power fluid throughout the land, the factory will no longer be tied to the proximity of coal or electric stations in towns, but will be able unless directed to choose its site on grounds of transport, cheap land and labour.

The first thing to plan for on the land is its most important industry, Agriculture, including Afforestation. It is an example of the complete urban-mindedness of the English legislator that when the Bill for the 1932 Act was discussed the fallacy was advanced that planning is the concomitant of the urban impact upon the country: that areas in which no extraneous building is taking place are to be described as "static" or "sterilized" and may be safely left to take care of themselves. Whereas no part of England is in more vital need of scientific planning and development than the agricultural

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countryside. Based upon the most recent research, a plan should now be prepared in order that the existing conditions of soil, climate, etc., could be related to the best methods of stimulating the productivity of suitable crops, arranging for their sequence so as to avoid interference from outside, such as urban building thrusting itself into and cutting up the shapes of farm land into uneconomic units for production. The footpath system is in many places highly detrimental to agriculture, the paths frequently cutting diagonally across fields, interfering with ploughing, etc. Without in any way curtailing the public's rights—even adding to them, for the need for pedestrian communications is greater than ever it was—these paths could be rearranged so as to follow hedgerow or other divisional features, which would be equally or more attractive. Doubtless also in this re-arrangement of farm land, its re-division into units of different sizes and in definite juxtaposition, much of the present charm of English scenery must vanish. As has been shown a large part of the land was planned from the view-point of the squire and his estate: copses for shooting, coverts for fox-breeding, trees for amenity, farms based on traditional tenancies. A good deal of this precious history in greenery will have to go. But there are certainly parts of England whose landscape will be improved by a greater display of sweeps of open, highly-cropped fields: a new scale may be added to what in some places is a monotonous

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iteration of hedge and hedgerow tree. Everywhere, where this agricultural change occurs, the quality of landscape fitness and beauty is to be super-added: there is no reason why it should not resemble a certain place described by Voltaire—"Le pays était cultivé pour le plaisir comme pour le besoin. Partout l'utile était agréable." The Forestry Commission has shown how attention to the interest of foliage, radiating avenues and other features of the layout of their planting operations round Thetford, are compatible with scientific arboriculture for profit. Nevertheless, in spite of the enormous importance of agriculture and the need of everything that can be done to stimulate and promote its regeneration, as the ultimate foundation of national prosperity, it is true that its detailed re-planning must come in the first place from within. The constructive work of local authorities in the way of planning can hardly interfere with the owners', farmers', fruit-growers' and foresters' methods of cultivating their lands; but they can be ready to co-operate in a movement initiated by those directly concerned. The rural planner must work hand in hand with the agricultural organiser: the scientific problems of Agriculture, unlike those of manufacture (usually enclosed within four walls and so more apt for normal planning), are spread over the face of the country.

The problem is primarily one of grouping: either of industry or population; indiscriminate

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scattering of units, however good in themselves, is the danger of rural change. *Æsthetically* it is a case of deciding to what extent a landscape can stand of building without becoming urbanized. Some landscapes can absorb more than others; for example, it is possible in rolling downland to tuck away a considerable amount of building in the folds, leaving the general effect of openness unaltered; a much smaller amount of building carelessly scattered and with harsh colouring could destroy the whole effect. Here is where country planning becomes the art of landscape design. The economic problem is singularly similar: a certain degree of concentration makes for economy of all practical and social services, roads made up for building, water, light, electric power, drainage, shopping and education (see the drawbacks of the ribbon—the special suburban form of scattering). An extreme example of sudden change will illuminate the less marked but similar problem elsewhere. The hidden coalfield discovered in East Kent projected the transformation of a piece of quiescent agricultural country; in the rural district of Eastry (and parts of two adjacent rural districts) an estimated new population was to be introduced—some quarter of a million people where now is found about 28,000. This was therefore no rural growth, but an urban revolution more likely to be lasting in its effects than the tramp-lings of three military conquests. Ultimately there would be about eighteen pits, situated at

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fairly regular intervals, but not all started at once (so far four are operating and all expansion is temporarily stopped). Without control of any sort, some kind of colliery housing scheme would be built near every pit and scattered building would spring up throughout the whole area, specially along the main roads and round existing towns and villages. The maximum impact would have been made upon farming productivity. But here a special water problem intervened: the whole water supply is drawn from the chalk through which the rain-water percolates, and there are fissures which allow direct contamination from the surface. Complete scattering would entail drainage for the whole area of 150 square miles, and even then the water engineers would not guarantee safety. It was essential therefore to group new growth and lay down certain lines of trunk sewers to the sea or to safe impermeable river beds. How, then, was this population to be grouped? Three alternatives offered themselves: (i) Attached to existing towns; this had direct advantages, as all the towns except Canterbury are on the coast and all the amenities of town life would be immediately available; but there was the drawback that the coastal towns would be flooded with colliers' housing schemes, which, however well designed, are of different type to London's sea-coast holiday-town building; Canterbury would lose the commercial asset of an old-world cathedral city and Dover is situated in a deep valley, difficult of expansion. (ii) One large

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new town might be planned somewhere conveniently at the centre which would thus grow quickly and might be available as pits closed and others opened. A single large town would give opportunity for the enlarged amenities mentioned in the case of Doncaster. It would also have the advantage of a more complex social structure than the purely colliery housing scheme, would not diminish the special quality of the coastal resorts and would inflict a minimum of change in the appearance of the greater part of the country. (iii) A compromise, which was eventually agreed upon, aimed at four or five new towns, each one serving three or more pits, and large suburban additions to one sea-coast town which was prepared for various reasons to change its character radically.

But all three proposals for grouping entailed a corresponding reservation of the country free from increased or at any rate innovating building. In East Kent it is the vital need of a pure water supply combined with the needs of agriculture that so sharply defines the problem: for if building were permitted anywhere, there would be an immediate rise in land value, in rough proportion to the proximity to pits and ancillary centres of activities.¹ At once, therefore, the financial problem was posed in its acutest form. Everyone whose land is increased will hope to

¹ Ironstone has also been found: there would also be the coal by-products and industrial growth attracted by coal and the closeness to London and the Continent.

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benefit: whether this is justifiable or not is not to the point. The preparation of a plan will have the effect of concentrating all this generally enhanced value upon certain spots, the incidence of which would of course be entirely hazardous as regards ownership and without any pretence of equity, but carefully avoiding the most productive land.

The crux of country planning in fact resolves itself into the question where to build and where not to build (or perhaps better where to build and where to farm): the plan to be efficient, both æsthetically, sanitarily and economically, cannot primarily concern itself with the freaks of ownership. Nor must the power of the purse of the industrialist or wealthy resident outbid agricultural values. If, of course, there had been one single owner—or even one owner per country, there need be no complaint: planning, which here means virtually grouping, would entail no loss of value, rather enhance it by leading to rapidity and cheapness of development. The difficulties occur when there are various owners, large and small; one finds that most or all of his land is reserved as open and another gets most or all of the building land. There is in fact a concentration of prospective value on one area and an elimination of possible value (except agricultural) from another. Three methods have been in recent years put forward as an equitable means of dealing with this fundamental issue: a fourth would be land nationalization and a

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fifth the German method of depriving the public of the right to build until permission were given by the public authority (see p. 95). Of the three methods to be discussed here, two have been suggested by the Council for the Preservation of Rural England and the third is partly the machinery of the Town and Country Planning Act 1932. The *first method* is known as the Pooling of increment value. The basis is that the owners should co-operate in a mutual arrangement to the effect that the possessor of the land who is deprived of building value shall be reimbursed from the receipts of the land that is developed. A primary valuation would be necessary and owners would in effect be allotted shares in the prospective value of the whole region or unit that was selected. There would be no meddling with individual ownership—not even the re-distribution of the Lex Adickes (of Frankfurt), but a sort of local company formed for local profit-sharing (a similar arrangement has been suggested for agriculture and it approaches co-operative marketing). The scheme has much to commend it—not the least being the non-interference of the outside public authority, except in the preparation of the plan.¹

The *second method* is founded upon the principle of Compensation and Betterment contained in all the Town Planning Acts that have been in operation in this country; but it aims

¹ For an example of the financial working of this scheme see C.P.R.E. Memorandum 5, Appendix.

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at a more positive application.¹ It is suggested that when the plan is made everyone whose land is deprived of building should be compensated from a fund kept strictly for local purposes; this fund is collected on the *realization* of the increased value on the building areas: in other words when land is ripe for development and is to be sold by the owner for building it must pay a betterment tax. A datum line is to be agreed upon, e.g. the capitalized value of accommodation land in the neighbourhood of a growing town; above this value the betterment is to be paid on a sliding scale. Presumably as compensation would be claimed at once, but betterment is only to be realized gradually, a loan (on a national basis) would have to be raised upon which the betterment might be considered to pay interest.

A partial solution proposed by the Town and Country Planning Act is to declare the area concerned a Temporary Agricultural Reservation and there only to allow building to proceed upon certain specified conditions: it has the definite advantage of obtaining control of a considerable area *before* it is known actually what the detailed planning requirements will be and providing for a growth by stages according as a case is made out for the *need* for that growth—it is in fact a mild approach towards the German permissive method of period zoning.

¹ See paper read in support by Sir George Courthope, Chairman Central Landowners' Association, C.P.R.E. pamphlet.

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Before any general change takes place an individual building may be allowed, and permission is not to be refused *unless* the authority is convinced upon three heads, that (i) equally suitable and reasonable (in price) land is obtainable elsewhere ; (ii) the building would involve danger or injury to health by reason of lack of roads, sewers, water supply or any public services, and that the provision of the services would be premature or likely to involve excessive expenditure of public money ; (iii) that the operations would be likely seriously to injure the amenity of the locality. In other words, it is for the public to make out a case *against* building and not for the builder to make out his case *for* it.

Generally speaking, it might be said that this temporary reservation method (as this official scheme may be called) may work in the areas where grouping of a slight and uncertain growth is wanted (it would prevent an undue scattering of services); but where there is a rapid change taking place and permanent areas require reserving so as to produce some kind of satellite growth (unless these open areas can be shown to be unfit for building) the machinery of pooling or positive betterment will be required as the only alternative to purchase either outright or of the development rights, as recommended by the Uthwatt Committee.

Unfortunately the clauses which permit this temporary reservation do not extend to the remoter areas where change is not anticipated,

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but where nevertheless a single house may be wanted.

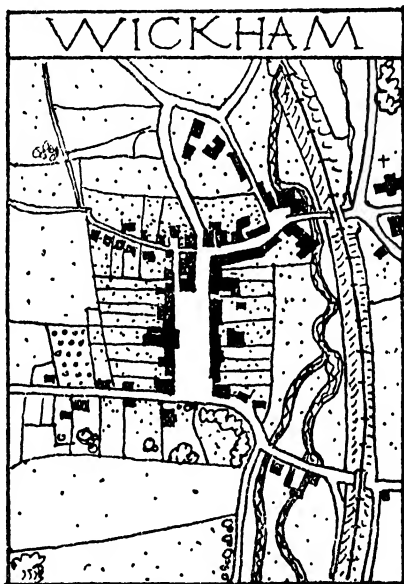
The 1932 Act, also, gives greater facility for total permanent *prohibition* of building which may be achieved without claim for compensation for a variety of causes, namely "that by reason of the situation or nature of the land the erection of buildings on it would involve danger or injury to health or would cause excessive expenditure of public money in the provision of roads, services, water supply or other public services."

Perhaps a brief description¹ of the application to a rural county (which the reader can apply personally) will show the method of the 1932 Act. Presuming that the whole county, an agricultural one, is to be included, the county town and a suitable area round it might well be included in a normal Town Planning scheme, leaving the rest of the county for a general regional Country Planning scheme. Nothing immediately is proposed (except perhaps a new road length or two and some widenings), but there may be two country towns that show some signs of growing and at any moment might require detailed treatment. Whenever it is necessary (under Section 9) a Supplementary scheme may be made for these two country towns, which will fall into place within the Regional plan, without affecting it except so far as refers to this precise detailed area. The advantage of this is obvious—the land is already

¹ This description is an example of the hopes that were engendered by the 1932 Act.

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under control and at first signs a careful plan, a scheme within a scheme, can be made. The remainder of the county, then, is put into some form of Reservation, with the exception of certain areas on which it is intended to concentrate any new building that may be



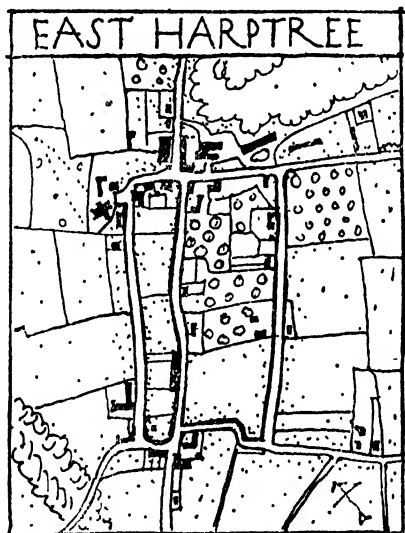
A Hollow Square Plan.

FIG. 34.

required. These centres will naturally be for the most part the existing villages or those which are suitable for growth, i.e. are in convenient and healthy situations and either have or can have inexpensively provided water, drainage, if possible electric light, and schools.

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Persuasive planning should do all it can to encourage new building to gravitate naturally to these sites, which should be ample enough to prevent any monopoly value being created. The planners' skill will be called for in selecting the best sites, planning the extensions so as to



A Solid Square Plan.

FIG. 35.

harmonize with the older parts and arranging for the services to be available. The two village plans here reproduced suggest that they will hold more buildings on their present sites.

The Agricultural Reservation remains: this would be of three sorts, Temporary, Permanent restricted and Permanent prohibited. The *Temporary* might cover considerable areas outside

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or adjacent to the Residential Centres: here an individual building will be allowed under the conditions already given; and perhaps the most important and novel word therein introduced is "premature": for example, in one instance under the old Act, building is taking place along a country road on which is a 12-inch water main: an odd building or so is going there *because* there is water. But to tap a main is an extravagance like tapping a high-tension electric cable: this is clearly an example of premature service; not until a group of sufficient number requires it, should the main be tapped. It is hoped that ribbon development can be checked by these means as a "Group" [*sic*] in ribbon form could be refused; and whereas a single house might be allowed, a succession of such requiring services (e.g. drainage) could be refused on the score of expensive services or prematurity.

Within this area the responsible authority could, provided certain conditions are also observed, also allow a group of buildings—a new village if need be—granting a "general development order" to permit building operations to proceed. The development order in a quiet country would naturally refer to small areas, but there was a very disquieting requirement for the authority to consider every three years the desirability of making such an order for the *whole* of the temporary reservation! Presumably the negative reasons of lack of services would continue to operate, but it was burdensome to

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have to reassert these restrictions every three years.

The other extreme would be the totally *Prohibited* area, such as low-lying land, or high ground devoid of water, or land which cannot be drained economically and which like East Kent has a water supply that can be contaminated by scattered building. In between would occur a large area of definitely remote country which is called the *Permanently Restricted* zone.

The 1932 Act, with its essentially suburban bias, attempts to zone such open areas in terms of very low density, e.g. one house in 25 acres. This absurdity was mitigated by the enunciation of a Rural Zone. But the whole position now (1942) requires complete overhauling with Agriculture as the major factor of country planning. [See the Scott Report on Land Utilization in Rural Areas.]

CHAPTER III

THE COUNTRY AS AN AMENITY : THE WILD AND TAME

NOTHING, not even the extremest mechanization of farming, can prevent the country from being the town-dwellers' chief contrasted recreation and relaxation ; its only rival is the sea. The country may be planned for use for agriculture and for a satellite residential population, but it will still be patrolled for pleasure. It is an aspect that cannot be neglected. It falls under two heads : the Wild Country and the Tame ; the former implies the ability to wander over unenclosed mountain, moor, valley and coastline ; the latter suggests the restricted access which will not interfere with highly organized cultivation of the ground.

There is not much need to enlarge upon the history of the human attitude to really Wild Country, except as an amusing example of the sudden expansion of widespread human appreciation. "Horreur" is the word that sums up the general attitude until the romantic movement of the eighteenth century ; and even the Rev. Mr. Gilpin, one of the pioneers of appreciation, could write of Dunmail Raise (in the Lake District) :

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“with regard to the adorning of such a scene with figures, nothing could suit it better than a group of banditti. Of all the scenes I ever saw, this was the most adapted to the perpetration of some dreadful deed.” And Housman (another early writer on the Lakes) speaking of the Jaws of Borrowdale (beyond which the poet Gray dared not venture) describes the scene, “as if in this corner of the universe, old Nature had deposited her rubbish during the formation of some happier district”. It would be fortunate if we could discover the diary of a Roman soldier describing his passage over High Street or his residence in Hardknott camp.

Even Wild Country is in these islands rarely devoid of the human touch : Mr. Milestone ¹ has fortunately not been allowed to remodel Nature in her wildest moods, though the rocks of Llanberis which he wished to metamorphose in the interests of correct taste have been quarried away for the practical purpose of obtaining slates. But the stone walls upon many fellsides—partitions of desolation, one old writer calls them—are examples of human handiwork seen on the face of nature ; and it is remarkable how outstanding are footpaths on the bare fellside. In much mountain scenery in this country other signs of sophistication are seen in juxtaposition with wildness ; in the Lakes the highly wrought dale-heads push right up into the mountain masses on all sides—only Ennerdale used to be

¹ The caricature of the landscapist is in Peacock's *Headlong Hall*.

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really uncultivated.¹ Snowdonia has a larger patch of continuous mountain, the Carnedd Group ; but on the other hand, instead of Lakeland's cul-de-sac valleys, there are through passes round all the massifs, with first-class main roads and all that these imply. Mr. W. G. Collingwood points out in his History that " the aspect of the



FIG. 36.

Lakes was, when it became famous, the result of a balance between two blind powers, nature and man, contrasting their efforts and blending their results ". But few to-day would agree with him that the scenery would be spoiled if the dale-heads reverted to their primæval scrub and swamp : though the peculiar quality of Lakeland, summed up in Wordsworth's phrase, " these fraternal hills," would be lacking. On the other

¹ And now is being afforested.

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hand, most people *will* agree that additional marks, upsetting that balance towards the human side are to be deplored, though not necessarily capable of being resisted. The hydro-electric power plant and complex cable routes in Snowdonia may be necessary for cheap power in the north, but it is foolish to pretend that they do other than daunt the wildness of the scenery. Similarly, quarrying and mining are a national necessity which no one would try to prevent ; but their ill-effects can be minimized and, what has rarely been done, when a new working is to be undertaken a real and equitable balance sheet drawn up of the advantages of working as against the disadvantages to the economic asset of mountain scenery. And always there should be a financial provision (possibly in the form of an original concession licence) which should be held in order to pay for clearing up the mess when the working is abandoned.

The object of the National Park idea was to provide a reasonable basis upon which these specially chosen areas should be planned and administered, for it is recognized that something more stringent is required than for dealing with country, however charming and unusual. For example, as has been continually pointed out, human additions in the country are often and still can be the climax of the scene. But in wild country a human climax, however great a work of art, is not what we go out to see. Wordsworth, whose *Guide to the Lakes* is still the best statement of the case for the Lakes in particular

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and for other wild country in general, has some sound advice upon the need for human humility on occasion : " A mansion, amidst such scenes, can never have sufficient dignity or interest to become principle in the landscape, and to render mountains, lakes or torrents with which it is surrounded, a subordinate part of the view." It is fortunate that an eighteenth-century writer's advice for dotting the hill-tops with classical structures, obelisks, temples and groups of columns was not followed by the great land-owners, as this frivolous reason of ornament had no such religious or national object as had the Greek temple.

Access to Wild Country is in many parts almost unrestricted owing to the absence of cultivation above a certain contour line and unsuitability as a sporting preserve ; the Lakes, Snowdonia, Exmoor, Dartmoor, are already, thanks to the owners and to large areas of common and crown lands, open as much as generally is required. The New Forest and that of Dean are already national possessions, though used for forestry as well as for recreation (which uses sometimes come into conflict). But there are wild areas of first importance for national use which are closely preserved for game : in Scotland the vastness of extent in comparison with the distance from centres of population (except in the neighbourhood of Glasgow) tends to diminish the problem ; but in Derbyshire, ringed round with towns whose younger inhabitants are increasingly thirsting for wild nature

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as a contrast to ugly towns, there is a definite and special problem which will require solving in a quite special way. Otherwise the national park treatment of wild country does not mean purchase so much as planning, even though it be the paradox of planning wild country ! But use and increasing use entails protection, and one of the chief objects of protection is to avoid a *general* sophistication, by concentrating upon well chosen and unobtrusive spots. Recreational use, preservation of scenery, protection of flora and fauna, these are the main objects of a National Park ; a just balance must be arrived at between them, calling for the nicest sense of proportion and delicacy of touch. On the other hand, there are the intrusions or discordancies which cannot be avoided : mineral working (always present in mountains), electric cables (in some places required and in others to be fought strenuously), water catchments (in one case freeing 30,000 acres for rambling, in another destroying natural beauty and closing up treasured places). There are also other disfigurements which can and should be utterly prohibited.

One of the chief dangers perhaps, and a really insidious one, is that Germanic vice of "*aussicht-punkt*" sophistication, by which all real wild beauty is destroyed through industrious labelling, staking, seating, fencing and grandmotherly attendance upon civilized human frailties. In this connection the chief problem will be to determine to what extent wild country is to be made accessible to the motor-car and charabanc :

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planning is required, if for this purpose alone, as anyone who knows the old pony tracks of the Lakeland district to-day will agree. In many ways, aeroplane approach, landing the visitor in the midst of wildness through which he must find his way on his primitive feet would be the ideal ; but this might be considered too heroic a measure.

There is a Middle type of Country that comes "betwixt the angelical and human kind": downlands, lower fells, upland pastures, moors, lands which, while not ranking as romantic wild scenery, have yet a special character of openness and bareness ; in many places it is perhaps not dangerous to leave them to the negative protection which has safeguarded them so far, i.e. absence of incentive to development through inaccessibility, the land not being likely to be used for much else than grazing. These waste lands, attractive in their spacious expanse, have not the minute allure of the wild country over which one wants to ramble or explore for unexpected treasures : existing roads and paths and the goodwill of farmers are probably sufficient for access and enjoyment. The Yorkshire dales and Northumberland fells and mid-Wales may be considered fairly safe except for the single outbreak of a cottage or petrol station of discordant materials. To include in a country planning scheme for this contingency alone appears to be somewhat roundabout : a simple control of building is what is required.

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But when this same type of country comes within reach of a larger population and is of smaller extent and liable to change, some planning protection becomes at once necessary. The South Downs, Berkshire and Wiltshire downs, the Cotswolds, the Mendip plateau, the Lancashire uplands, the lower Derbyshire moors and the brecklands and heaths of East Anglia are too extensive for purchase, and the State or the National Trust do not want to set up as landlords to farming tenants. Inaccessibility to public water supply owing to height may lead to scheduling for permanent open land under the new Act : but such total prohibition may not be necessary ; what is required is discreet siting and suitable materials and shape—in a word, the negative virtue of an absence of disfigurement. Where complete openness is required and development is imminent, and the public service clauses of the new Act are inapplicable, it would seem that there is no alternative to complete purchase or buying out of the building value (compensation), leaving the freehold in private possession and in grazing use. The National Trust properties and the million and a half acres of remaining Common lands form the basis of a system of national open spaces—some falling within areas which might be scheduled as national parks, others in less exciting country. Unfortunately, as the Commons are the remains of the vast extent most of which has been enclosed, and the National Trust properties usually are given to preserve particular areas threatened with destruc-

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tion, there is no system about their distribution : many counties are entirely devoid of either type. Where these are highly cultivated it is difficult to see that there can ever be much of this open or quasi-open land.

Commons which fall within a planning scheme should always be scheduled as open spaces as, although not statutorily accessible to the public at large (unless within an "urban" area), they can no longer be enclosed for any purpose except with the sanction of the Minister of Agriculture. There would appear to be enough agricultural land available in this country for farming without further commons enclosure, and it is interesting to remember that as late as the middle of last century it was necessary to prove that it was a better national policy to keep Epping Forest open to Londoners than to grub up the trees to add a few more acres to Essex farmland.

The Tamed or humanized Country remains to be considered. It is in no sense a piece of national boasting to say that this cultivated country is the most beautiful in the world—and still remains so where it has not been damaged by recent assaults. And it is probably true that the more intensely humanized the more beautiful it is, namely in the villages and their immediate surroundings, in the farmsteads and the crossing of streams. These are the points upon which the normal town dweller concentrates his human and photographic lens ; the appreciation of this sort of country is very old—especially by the

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townsman; it receives its formal expression from the poets and is summed up by Milton in the famous simile, with its opening antithesis :

As one who long in populous city pent
Where houses thick and sewers ¹ annoy the air
Forth issuing on a summer's morn to breathe
Among the pleasant villages and farms
Adjoin'd, from each thing met conceives delight,
The smell of grain or tedded grass, or kine,
Or dairy, each rural sight, each rural sound. . . .

The final touch—the climax—is the human being. So far are we therefore removed from the ideal of nature in the wild. Rousseau felt this when exploring an Alpine vale which appeared never to have known a human touch; on turning the corner of a savage gorge he beheld a stocking-factory. The old lady knitting at her door is, on the contrary, exactly in the picture of a village. The users of this country, farmed or gardened, its roadside hedges clipped and its wastes cropped (for fear of sowing weeds) must conform to the requirements of neatness. Paths whether fenced or not must be kept to, gates closed, and nothing left behind to shock the countryman's natural tidiness.

Again the question of intensity of use is all-important: in the surroundings of large towns, with crowds of train and bus-assembled walkers, the simple means of access designed primarily for villagers to take short cuts on business or social visits will not suffice. Something on *plan*

¹ If sewers have improved since Milton's day, chimneys have grown worse.

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must be arranged, accompanied by a code of conduct. A revisal of the footpaths—a gigantic task—may help both farmers and landowners on one hand and walkers on the other. There should be in the country a pedestrian communication as well as a road or railway system.

The organization of country walking use into Rambling federations is helpful with regard to conduct. The Youth Hostels Association and the Holiday Fellowship and other organizations have made a start at providing accommodation on a systematic plan of access and distance. The motor-car and charabanc use of the country is equally insistent; here the special problem arises from the desire to use narrow and beautiful roads whose widening (to fit them for this increased traffic) would damage their present beauty. The footpath kept as a distinct entity (sometimes at a different level and inside the field hedge when the road must be widened) is an example of the divergent view between the motorist and footman; each must be satisfactorily provided for. The pedestrian on the road is a traffic obstruction unit: the car next the path is a destroyer of walking enjoyment. The road must also be usable by cattle and horses, not merely a motor track.

These random notes will show the need for a systematic study of this aspect of country planning: farmers, ramblers, riders, motorists, landowners, country dwellers, hunters, shooters, fishers and amenity organizations—each have their points of view which require harmonizing.

CHAPTER IV

RURAL PRESERVATION : DISFIGUREMENT

RURAL preservation may be said to have a threefold object : to encourage planning for development and see that it is in harmony with its setting ; to look after and conserve the existing features of the country, both natural and artificial, old and new, building and vegetation ; to prevent disfigurement.

The constructive use and increased use of the country is to be accompanied by some policy for the preservation of its existing beauty and interest : a harmonization between these two can be established on the basis of the urban and rural, the mechanical and physical balance. The Council for the Preservation of Rural England was formed in order to co-ordinate the variety of interest involved in the country :—the local authorities, the owners, the farmers, the inhabitants ; the users of the country, the ramblers, the campers, the motorists ; the preservationists of the commons and footpaths, wild flowers, fauna, ancient buildings, trees, etc. ; the national trust ; the women's institutes, the rural community councils ; the architects, surveyors, engineers and town planners ; the garden cities, housing and town-planning propaganda

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associations. It is an immense volume of energy all bent, from however divergent angles, towards this end. The first and ultimate task of the Council is to arouse and educate public opinion in the use of the country for work and for play, for permanent and passing purposes. If there were an unconscious feeling for the right thing, the planning of the country would still be necessary, but there would not be the need of any council for its preservation. But when it is remembered that the majority of the population of England are town-dwellers, that the country is continually changing hands, that new farming methods may revive agricultural use of land, that except in a few favoured places (e.g. the Cotswolds) all technicians are town bred, and finally, that the normal public are inured to the ugliness of our normal modern towns, it will be agreed that there is need for education all round, not excluding that of our legislators.

The Chinese, faced with the intensive use of the country, have, as already mentioned, evolved a definite system, the practice and æsthetic of Feng Shui, for the purpose. Whether in the present political welter of that country any vestiges of the system remain, is uncertain; but we might well follow their example in attempting to formulate and act up to some definite principles of conduct. The Chinese landscape, evolved under Feng Shui, is probably the most elaborately composed that has ever existed; but it has remained country, for unlike the Greeks whose city policy dominates Europe, the Chinese have

always looked to the country as their home. Their system is based upon a lofty and somewhat abstruse philosophy and has been described as the science of "adapting the residence of the living and the dead so as to co-operate and harmonize with the local currents of the cosmic Breath". The veneration for natural scenery combined with the necessity of humanly using it and modifying it are thus given a spiritual setting. But the aim is equally practical; the density of population per square mile has forced them to regard the country as equally subject to artificial treatment as the town; unless it was under complete control its identity would perish—it would either become continuous town or a messed-up country. The simple origin of the system, based on the analogy of nature's sculpting of the earth by the action of wind and water, that ceaseless creation of the country, has been immensely expanded: "at every place there are special topographical features (natural or artificial) which indicate or modify the universal spiritual Breath". The alterations of natural forms by human intrusions have a good or bad effect according to the new combination of forms produced. Infringement of precise rules or neglect to study them are punished sometimes by nature, sometimes by man. Thus the Chinese would find it difficult to understand how anyone would impound water (the symbol of humility, because it always seeks the lowest place) aloft in a reservoir, and plant a village below in the valley in the very pathway of the

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water. If a village were already there when the original stream was a trickle, the confinement of the water in a lake above would have been found to alter the natural harmonies of the locality and the village would have been moved out of harm's way. The humblest when roused can become very furious, as was found when this particular dam burst and overwhelmed the village on a dark and stormy night. Human resentment at infringement can be also cataclysmic. The sudden attack on and massacre of missionaries in remote villages has on occasion puzzled and horrified the West ; the opposition was probably not at all to their religious teaching, but because the pitch of the roof of their neat corrugated-iron tabernacle was too steep or the spike of their bell turret was an offence in the valley. Again, the Chinese have sometimes considered that railways, embankments or tunnels have tended to encourage the circulation of a maleficent breath—a sort of whiff from the pit—and contractors, those ardent pioneers of progressive Western civilization, have been astonished that their efforts have met with furious opposition. A little more attention to the lie of the land might have secured the willing co-operation of the inhabitants. The professor of Feng Shui, whose work is chiefly to study and expound the shapes which the spiritual forces of nature have produced and to prescribe the way in which the mechanizing mind of man with his buildings, fields, roads, waterworks, canals, bridges and railways must conform, is placed in

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a position of extreme power. We can hardly anticipate a practice based upon such esoteric principles; nor can we expect that a flaring upstart bungalow which destroys a scene of immemorial beauty will be exploded by popular fury, or that the perpetrators of certain countryside blasting advertisements will be conflagrated in their own spirit. But it should be possible to evolve a system of landscape design which will be authoritative enough to prevent brutal outrage on the one hand and a misguided attempt at a bogus naturalism or faked antiquity on the other.

The conservation of existing features of the country is essentially a museum problem, using the word in its widest sense. Though the country at large may and should change, there are certain objects, great or small, which it is a duty to the present and future generations to keep as far as is possible intact. The village or detailed survey will point these out, and it is sometimes necessary to purchase in order to obtain complete control. The National Trust was specially formed to be the holder of such possessions and its collection is already of sufficiently impressive size and variety, ranging from mountain-tops, coast-line, fen land, open country, landscaped park, farming land, ruined castles, inhabited country houses, cottages and other buildings. Continued use, where it is compatible with preservation, is made of those possessions which are capable of it; so that the mummified

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glass-case museum specimen is avoided as much as possible. A house which is lived in to-day, even though it was built for a bygone age, is more appreciable than one furnished exactly as it was (these precise reconstructions are more suitable for a *town* ethnological museum—here in fact is an exact example of the difference between urban exactness and rural freedom).

There is always a danger that urban enthusiasm for antiquarianism may interfere with rural enjoyment; thus a dolmen or cromlech of superb design and in a beautiful natural setting has been æsthetically ruined by preservationist zeal: it was accessible until a few years ago to the stray passenger along a remote lane, and a vandal tourist may have occasionally scratched his initials on the massive blocks; but the danger was negligible and in no way affected the grandeur of a great monument in its natural setting. It has been surrounded with a green-painted high railing, and to a padlocked gate is attached a black and white enamelled advertisement setting forth in lettering, as bad as the tourist's initials, the Act and official under whom this antiquity has been placed and desecrated.

The Ancient Monuments Department of the Office of Works and the Society for the Protection of Ancient Buildings look after precious works of architecture in town and country alike; their work is an object lesson for the district in showing the difference between real restoration and misguided faking. The

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Royal Society of Arts has an active scheme for restoring old cottages of architectural value and has actually purchased the whole village of West Wycombe in order that it may be made an example of preservation and continued use.

The scheduling of buildings and sites under the Ancient Monuments Act, though the actual protection is only temporary, has great weight and is an example of the value of that public opinion which is ultimately more potent than legislation. The Royal Commission on Ancient Monuments is carrying out a National Survey of singular completeness which should be pushed on: (the Commissioners are unfortunately limited in their labours by the death of Queen Anne).

The commons and footpaths are looked after by the Commons and Footpaths Preservation Society; here is a case for the piecing up of local surveys to form a national record, which is at present wanting of both these invaluable features of the countryside.

The prevention of disfigurement is the negative side of the picture; a careful analysis of the types, causes, heinousness and cure of these *real* blots upon the vestal's robe will assist to point the way in a more positive direction. It is indeed easier to proceed by describing what is bad, just as Milton found Hell more vivid to picture than Heaven; but wholesale and indiscriminate abuse is only useful in arousing the sluggish spirits of an apathetic audience.

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Something more careful and balanced is wanted for the production of a policy of Protection. Above all, it is necessary to preserve a logical and cool outlook ; one must beware, for example, of condemning modern roads for cutting straight lines across the country and at the same time of being an enthusiastic student and admirer of Roman roads. The Pylon, a new arrival, has given rise perhaps to more heat and illogical discussion than any other one feature. To say that a pylon, because it is a good seemingly straightforward piece of engineering is therefore a suitable addition to any scene, is as bad as condemning it wholesale. It is possible to consider that the two lofty steel standards which are placed on either side of the Severn and are seen from the cliff at Nuncham give a fine vertical note to a somewhat flat scene ; but similar, though smaller, pylons down the centre of the village green at Frampton-on-Severn are entirely out of place. Or again, the series of pylons seen striding across the bare and rather dull hills of Palestine may possess some of the impressive qualities of the aqueducts on the Campagna ; but carry that same hard line across the South Downs and a scene of exquisite balanced beauty is mechanized and marred. This fault, the incursion of the mechanized where before the natural was dominant, will explain many of the causes of dissatisfaction with modern apparatus. The row of Petrol Pumps in a village by reason of their varied and brilliant colours and emphatic shapes (each

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a single straightforward mechanical contrivance with a bad habit of exhibiting its entrails) shouts down the quieter natural and older human elements of the village picture and thereby becomes the focal point of interest. This may be the age of mechanism but we do not want the humble if necessary purveyors of the juice of mechanism to outshine the village church, the inn, the trees and cottages, old and new. The single vermilion spot of the pillar-box, on the other hand, is like the bright spot the old landscapists never failed to introduce; it has been said that the right proportion of bright colour to the quieter background of an English village is represented by a cricket ball in a cricket field. But there are many localities, especially near the sea, where different bright colour washes are in keeping with the scene, either by contrast or similarity of high key of tone.

It is indeed not a simple matter to determine the nature and degree of disfigurement in given examples of local scenery. The following examples will illustrate this. A disfigurement may exist in an object which should be a thing of beauty :—firstly a *House*, of good shape but built of discordant materials or bad texture; secondly, the house may be good in itself but may be disfigured by some intrusive object such as an advertisement; thirdly, the house may form a temporary disfigurement by reason of its newness and the rawness of its setting; fourthly, the house may be intrinsically good in every respect, but it may form a disfigurement

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by being wrongly sited, e.g. in a remote spot or on a commanding site where it is conflictingly dominant or forming one of a ribbon growth. Some objects again may be considered as fundamental disfigurements, e.g. rural advertisement, which instead of being parasitically applied to a good building such as a country cottage or shop, may stand by itself in a field; the same poster properly displayed in a town might be quite attractive. Some of these fundamental disfigurements may be unavoidable adjuncts of modern life, such as telegraph posts. Pylons, where they are really needed and where cables cannot be buried, may save a country or town from worse damage—the smoke nuisance.

There should also be some attempt made to discriminate between reasonable freedom of action and public nuisance. To prevent the latter it need not be necessary to interfere in an irritating way with the former. The difficulty consists in deciding where to draw the line.

The time factor, alluded to in the temporary disfigurement of a new house, might well furnish the basis for a classification. Thus litter, however irritating, might be classed as the most transient, easily removed or covered up; unless it takes the form of a refuse dump, when it assumes almost a permanency. In assessing the disfigurement caused by a new road, this time element is of great importance. The initial outcry at a raw wound on Nature's body is inevitable—all change, and particularly a surgical incision, is resented; but some attempt

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should be made to visualize the subsequent effect. That new road, which "inhuman, unnatural, and altogether relentless, drives like a ram through the countryside with as much regard for its form and design as a red-hot poker drawn over a carpet," may in years to come sink quietly into the landscape as some railways have done. It is perhaps doubtful whether the traffic upon it will ever allow it to take on the very spirit of solitude,

as the Soul of that great Power is met
Sometimes embodied on a public road,
When for the night deserted it assumes
A character of quiet more profound
Than pathless wastes.

This temporary character of unsightliness, which can suffer at Nature's hand a land change into something rich and strange—also found in a new building and a young plantation (than which few things are more scrubby and unsightly)—is thus quite distinct from the temporary eyesore which can only be assuaged by its complete removal. Energy need not be dissipated by exclaiming against that which will in no long time be devoid of offence.

On the other hand vigour should be directed to prevent permanent, or what for practical purposes may be called permanent, disfigurements. Thus an ugly building, bad both in form, detail and material, may be considered permanent, for we cannot count upon an earthquake in this country, and even virginia creeper,

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a vestal's robe, cannot cover everything, as there are people whose very facial bones have a resolute ugliness that no amount of rosy flesh or hirsute appendages can hide.

It is optimistic to count upon the temporariness of many shacks, caravans-on-posts, old railway coaches, and static omnibuses: as the French say "*rien ne dure comme le provisoire.*" These objects, seedy on their first appearance (as they are seldom new), do not mellow with time, but have a knack of lingering on, patched and botched, into a decrepit and disreputable old age which

becomes their perished soul
As hoary mouldiness does rotten fruit.

As to those necessary adjuncts of modern existence, telegraph posts, overhead cables, etc., the correct *time* attitude to adopt would seem to be to acknowledge frankly their disfigurement and submit to them where they are unavoidable, until science has discovered a more sightly method of handling them or an economic way of putting them underground. It may be roughly generalized that if they are unsightly or dangerous, they are not the last word in scientific treatment; and indeed as used to-day they are both liable to inflict and to suffer damage through their exposure, in addition to their obtrusiveness.

A rough and ready fourfold grouping may be adopted for calculating and classifying disfigurement, taking the time factor into general and

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sometimes qualifying consideration. The four categories are as follows :

- (i) *Unmitigated nuisances, which should not be tolerated for an instant in a civilized rural community.*
- (ii) *Disfigurements which appear inevitable to the present stage of civilization, but whose offence may or should be mitigated.*
- (iii) *Constructive features which should add to rather than detract from the rural scene, but which for some reason fall short or are themselves afflicted.*
- (iv) *Existing country objects, both natural and artificial, which are peculiarly subject to disfigurement.*

The uncertain logic of this grouping will be apparent, seeing that the last group appears to be suffering from the inflictions of the first. And many people will differ as to what should be put into the second or third ; for example, Wordsworth would have put a railway into the second (if he had not put it in the first) but a well-planned road in the third. It is, however, not necessary to expand the individual headings of disfigurements into four precise groups, but to take them roughly in the order of these four, thus leaving the shading off from one to the other indistinct. A recently published report upon Cumbria ¹ has subdivided them under seventeen headings ; this may appear an excessive degree of sectionalism, but the object, it must be remembered, is to enable the disfigurements to be *placed* as exactly as possible. They form at any rate a set of useful pigeon-

¹ Liverpool University Press, see Bibliography.

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holes for the separation and collection of material. By this means an immense amount of examples can be classified ; the line of action to be taken in each case is perhaps not so easy, but it is surprising how greatly simple classification induces clear thinking. The whole collection of disfigurements might be formed into one of those ingenious diagrams, a sort of upas tree, with its ramifications bearing the fruit of individual evils, all springing from the twisted Trunk of degraded Taste and Self-interest. The following is the list of seventeen headings, with some minor sub-divisions.

I. LITTER : (a) Casual and thoughtless droppings ranging from bus-tickets to remains of picnics and broken bottles. Here is an instance of the need for discrimination ; while it is a simple and safe rule to say *leave no litter*, it is also true that bread-crumbs disappear very soon and that an apple-core is less unsightly than an orange skin. Wirework receptacles which display the bright-coloured litter within may in places of wildness appear only less obtrusive than the scattered litter itself.

(b) The refuse heap of a house or village : there is a genuine difficulty in disposing of cans, broken pots and unburnable rubbish such as old bedsteads and fenders. Most old villagers observe a great deal of decency in disposing of this type of unavoidable rubbish ; but newcomers are frequently out-faced. A village tip discreetly hidden and not too close is probably the solution : alternatively, individual burying.

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But in no case should the tip be made into a stream in the vague hope that it will wash the litter away.

(c) The rubbish dump made in the country by an urban authority for convenience and to save the expense of scientific disposal. An unwarrantable intrusion.

II. ADVERTISEMENTS. They may be divided into

- (i) *Notices for public purposes.*
- (ii) *Advertisement for private gain.*

(i) It is convenient in these days of rapid transit to put up finger-posts and to label every village and it has been considered desirable to name every bridge. There are also certain warning signs reduced to well-known symbols for security of traffic. Too much labelling may become offensive.

(ii) Private advertisement in the country may be found in four forms : pasted on their own hoardings or standing separately ; affixed to shops in villages or outlying buildings and railway arches ; adorning petrol stations ; gummed on to the very faces of the rocks. None of these uses of advertisement should be allowed. The shop fixtures require careful handling ; nothing invades a district with greater suddenness and nothing appears at first sight less defensible. But it must be remembered that they are the direct reply of the small dealer to the branches of the multiple stores. It would be unfair to tear down the attempts to proclaim the pro-

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prietary articles sold in the one, if we allow the other to deface the village with a shop-front, the whole of which, including an outrageous fascia board, is a form of monstrous stock advertisement.

The automatic sweet machine, though not exactly an advertisement, occupies a similar place in village defacement. There are several places where they have already become a nuisance.

III. SMOKE AND DUST. There should be no smoke nuisance in the country, and happily it is not a common disfigurement. Dust has largely been eliminated from our main roads owing to tar spraying: it must be remembered that this purging of our roadside hedges, walls and grass wastes is a gain which must be set in the balance against some of the mischief. But industrial dust may be a disfiguring nuisance spreading, for example, from a lime or cement works far afield.

IV. NOISE. This is a grave danger even though it be more ephemeral than litter: Dr. Vaughan Cornish has well pointed out that "if the quietude of the senses be broken . . . by clatter of mechanical noise, there is a loss of happiness out of all proportion to the material discomfort, for the mind begins to pay attention to imperfections instead of dwelling upon an ideal, and we no longer live in Arcadia." There is a special note or tone in different countrysides which is essential to its full appreciation; not that anyone should pass through it silent and abashed, but the honk of the motor-car, the

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sound of the gramophone in the open, the whir of the speed-boat on the lake, do not enter into the chord : their dissonance is seriously felt and of singular pervasiveness.

V. UPROOTING AND BURNING. It is difficult to draw the line at which plucking and digging up wild flowers becomes an offence—so difficult that Lord Grey deprecates making uprooting a crime. By-laws, giving powers to fine and only enforced against systematic criminal uprooters, are perhaps the solution. The denser the population or the more famous the flowery plat, the more pressure should be brought to stop all digging up. But the wayfarer plucking a flower should not be execrated !

Burning is usually the result of a careless accident : but its effects may be devastating. Strictly speaking also the intentional burning of heather done for sporting purposes is extremely disfiguring—one seeks for a stretch of fine old bushy heather dotted with antique furze and finds a blackened waste. Nature repairs the damage to the heather sooner than to the gorse.

VI. QUARRIES AND MINING. The question here is not their economic justification but purely their effect upon the landscape. In some ways they may be said to alter natural conditions more fundamentally than other human handiwork. Erections may be removed, but features when demolished cannot be restored. There are cases indeed where abandoned quarries may not be disfigurements—they may be incorporated in the natural scene—even picturesque additions

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to it. But the workings in these examples have been usually on a small scale. There is often untidiness in working which could well be avoided—especially the spreading out of sheds and scattering of debris. The harsh forms of tips from quarry or mine, at variance with the landscape (perhaps seen in its most acute form in the china clay pyramids like giants' bell-tents encamped on Dartmoor) can be mitigated by means of planting. It is perhaps too much to ask for the landscape designer's art to be employed in shaping the mass ; but a simple piece of forethought should be exercised : the soil where the tip is to go should be removed and stored, to be sprinkled later over the surface. Though thinner than before it will hasten the clothing of the discordant barrenness which is one of the worst aspects of the tip. There should be an obligation to clear up the mess of abandoned workings.

VII. OVERHEAD WIRES. The electricity pylon has already been discussed : there are also the other overhead wires, telegraph and telephone, which though long with us are also disfiguring. Many people have schooled their eyes not to observe these lesser posts, but at the price of dulling their finer perceptions. The only thing at the moment appears to be to prevent these obtrusive objects from being placed in the more particular places and where this is unavoidable to insist upon the extra cost of burial being incurred.

VIII. PETROL STATIONS are the acutest form

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of colour blemish which the country has suffered from. There was usually a threefold disturbance: the actual buildings; the advertisements; the pumps. These have already been discussed.

IX. RAILWAYS. The gradients necessary to railways render them less amenable to natural forms than roads. Wordsworth and Ruskin after him were right in exclaiming against all entrance of railways into such an area as the lakes or other national parks. But the narrow-gauge line through the Aberglaslyn Pass has been held by some to be no disfigurement.

X. ROADS. The disfigurements attaching to roads are various and difficult to classify except under the heading of general alignment, grading and of detailed design. The destruction of the setting of roads, either of walls, hedges or hedgerow trees, is a disfigurement of the "undoing" sort which should always, where possible, be avoided. Where a widening in the carriage way is absolutely necessary in one of these roads and where also a footpath should be provided, for the safety of pedestrians, this should be formed outside the existing road and its walls or hedges, with some unobtrusive railing dividing it from the fields.

In addition to major features of design, there are the minor details of which kerbs, raised or flush, are perhaps the most important. As regards enclosure, concrete posts and wires are (it is rather difficult to say why—except by association of ideas) unkindly fencing; if they

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were at once planted with hedges this would be mitigated.

The black colour of the modern road is new in the country scene. There have been people who expatiate upon its colour effects and sky reflection, especially when wet.

XI. BRIDGES. It is not necessary to say much about bridge abuse. The worst thing, of course, that can befall an old bridge is desecration during widening. County engineers have now found the way to widen old bridges in such a way as to harmonize with the old work. Archæological purists may say that the increased width should be frankly done so as to leave no doubt about it ; but the less purely minded lover of the country is glad to see the widened side of the bridge rebuilt using the actual stones. In other cases a new bridge quite distinct from the old might better be provided.

XII. BUILDINGS have already been discussed, but for purposes of classification it may be said that they may cause disfigurement for the following reasons—

- (i) *The wrong type, i.e. antagonistic to the general character of the district.*
- (ii) *Wrongly placed : the building may be good in itself, but it should either not be there at all or it is not well designed for the site ; or it may be wrong in its association with other buildings as in the notorious "ribbon" formation.*
- (iii) *Bad design.*
- (iv) *Discordant materials.*

XIII. PLANTING. The disfigurements connected with planting consist in cutting down

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where of landscape value and adding where openness is desired. There is also the question of the types of trees : many people deplore the commercial planting of conifers in such places as the New Forest, Forest of Dean and the Lake District.

XIV. LANES. Often damaged by the destruction of their enclosing walls, banks and hedges. One-way traffic and prohibition of charabancs will frequently save a lane from widening and an occasional "lay-by" will meet the needs of purely local traffic.

XV. FOOTPATHS require openness as much as lanes require enclosure. The paving of paths along roads may be dreadfully urban in character : they should however be easy to walk on or they will not be used.

XVI. COMMONS : these suffer chiefly from litter and burning. "Regulation" is the remedy.

XVII. RIVERS AND WATERCOURSES : refuse and litter and pollution by sewage or trade effluent are their chief disfigurements.

NOTE.—The powers for the control of many of the above Disfigurements are contained in by-laws made under various Acts, in addition to the appropriate clauses framed under the Town and Country Planning Act.

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